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Jean Monnet Chair Papers

Macroeconomic Research and European Policy Formation

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The European Policy Unit at the European University Institute

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The Jean Monnet Chair

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Introduction

Reflection on European macroeconomic policies appears to be particularly timely for two main reasons: the rapid change in the political context and the hesitations concerning the reliability as well as the implications of macroeconomic scientific knowledge. In these lectures I shall attempt to express my views as a research worker concerned in particular with the technical problems of economic policy formation. These views bear on the evolution and progress of the macroeconomic discipline as much as on the way in which it ought to serve for the determination of proper solutions to present actual problems.

The two ~~last~~ lectures will be respectively devoted to the two main types of structural reforms about which Europe has now to take decisions. Lecture 3 will consider the choice of the economic system; even quite independently of the present revolution in Eastern Europe, important questions are raised on these issues in Western Europe. Lecture 4 will deal with the economic challenge of European unification, a challenge that any Jean Monnet lecturer should address even if it was not on the policy agenda.

Before going frankly into these topics it is appropriate to pause in order to understand well where recent trends in macroeconomic research and recent experience in policy formation has led us. Lecture 1 then will survey this history and attempt to draw significant conclusions from it. With the same purpose, lecture 2 will go deeper into both the methodology of macroeconomics and the assessment of some crucial features of macroeconomic phenomena.

I. Macroeconomic wisdom on policy formation

1. Introduction

The modern concept of economic policy is now roughly fifty years old. Concern with unemployment, proposals for expansionary demand management, and their rationalization by J. M. Keynes gave a special responsibility to macroeconomic policies in the 1930s. On the other hand the basic logical structure to be used in policy formation was made explicit and studied by J. Tinbergen (see in particular his two books, 1952 and 1956). Since those days quite a few relevant questions have been posed about the proper way to study the impact of policies, so that Tinbergen's original theory has been much extended and made a great deal more sophisticated.

During this half a century macroeconomic knowledge has also evolved. While its main elements could be conveyed in 1940 with the bare bones of Keynes' General Theory, we have added much to it, amended the central propositions, developed complementary and even alternative theoretical structures, gathered a lot of macroeconomic data, processed them by thousands of econometric studies. As a result our ideas about the underlying phenomena have become a good deal more subtle and complex.

In order to grasp how the present challenges can best be met it is useful to understand this double history. This is why I shall attempt in this lecture to take a bird's eye view of the events the economic profession has been living and to reflect on their implications. What is needed does not then cover all the material that would have to be found in a book on the history of thoughts, but rather the part of it that may have direct relevance today.

For this purpose the starting point has not to be the immediate pre- or post-war years. It will suffice here to consider in section 2 the situation in the mid-1960s, when the initial ideas had matured and been diffused, and when the institutional and statistical framework for their application had been set up. A well defined methodology was then taught and widely applied; a large part of it remains valid now.

But the methodology was not unanimously praised. Both on the left and on the right of the majority, some economists expressed dissatisfaction and argued for different conceptions and different strands of economic policy. They were occasionally influential, not only on the development of ideas but also on actual policy choices. Both of these groups have contributed to the revision of the majority view and are still active these days. I shall devote sections 3 and 4 respectively to their messages.

Reflecting on past history is also useful in another respect, namely to understand the nature of the interplay between three activities: academic research, policy advising and policy deciding. The experience gained in this respect during the past decades has obvious significance for anyone who cares about the ultimate aims that policies are intended to serve. It will be the subject of section 5.

2. Economic policy formation, as seen in the '60s

Twenty-five years ago a short presentation on macroeconomic policy was a simple and pleasant matter, whether the presentation was addressed to students or to a more general public. It was pleasant both because one felt justified in expressing that this policy could have a good degree of success and because one could state a message that seemed to be more and more widely accepted by economists. First one had first to explain the objective assigned to macroeconomic policy; then one had to sketch a simple theory on the working of the economy; and finally one had to outline a methodology for a rational choice of a policy. Let us consider these three parts, in the spirit in which they were discussed in the '60s but without refraining from taking into appropriate account considerations that have been stressed more recently.

The objective most often chosen was full employment with stability. Full employment meant that anyone able and willing to work, ready to move and having reasonable wage and qualification claims could find a job after a normal time of search. In other words, unemployment had to be only frictional, due both to the presence of search activities and to an unavoidable degree of mismatch between the geographical and professional structures of on the one hand the supply of labor, and on the other hand the demand for it. (In these lectures I shall not insist on the fact that a margin of appreciation remains in the use of these definitions of full employment and frictional unemployment.) Stability referred to prices and nominal wage rates. It was hardly ever intended to mean the absence of any increase in the general level of prices; but the increase had to be small (two or three per cent a year, say) and to be kept under control, acceleration due to unexpected shocks being prevented from becoming permanent.

Achievement of both full employment and price stability was not claimed to always be easy; but it was at that time considered as likely enough to remain feasible. A number of governments and even constitutions did commit policies to meet the two objectives.

Already then and again later on, other objectives were often added. For instance the "magic square", on which national performance was proposed to be measured, also considered the rate of growth and the surplus of the current balance of payments. Inducing a more equal distribution of income and wealth was also often claimed to be aimed at. In order to recognize that weights had to be given to these various objectives, it often appeared useful to refer to a welfare function that economic policy should maximize. It was even pointed out on occasion that different governments, appointed by different parts of the electorate, had naturally to adopt different welfare functions.

The main determinant of the macroeconomic evolution was then viewed as being the aggregate demand for goods and services. A too low level of aggregate demand would entail a low output and some non- frictional unemployment; a too high level would generate inflationary pressures and price increases would accelerate. This functioning of the economy could be represented, with a fair degree of accuracy, by an econometric model in which each equation would have its own meaning. Some equations would concern the various parts of aggregate demand (consumption, investment ...), others the changes in prices and wage rates (Phillips law); employment would respond to output as determined by demand (Okun law), and so on.

According to this vision of the phenomena, the supply of goods and services did not require extensive analysis. It was given in the short run and then imposed an upper limit on the volume of demand that was feasible without an acceleration of inflation. In the medium run it reacted to the evolution of demand in such a way that, if the latter grew regularly, productive capacity would grow at the same pace. The supply of labor was the only real constraint on expansion.

But a satisfactory economic evolution required a conscious and clever demand management by the authorities. Indeed, aggregate demand was subject to spontaneous changes that could either disrupt economic growth or induce inflationary pressures. These changes could come from the international environment, alternatively stimulating or depressing; they could come from the actions of public authorities concerned with defence building, with the launching of new social programs or with restoring budget balance; and they could also come from the private economy, whose needs evolve and which is subject to waves of optimism or pessimism.

In order to perform its stabilizing function in par with its allocation and distribution functions, public finance had to be geared by a correct diagnosis of the spontaneous trends of demand and by proper estimates of the impacts that its own actions would have on this demand. This is why teams of economists had to be working close to the public authorities in order to assist for the required diagnosis and estimation. These economists were particularly important among the main users of statistical information which had to be developed, and of macroeconometric models which had to be built and kept up.

To stabilize the evolution of aggregate demand, governments could use the many instruments of budgetary policy and of monetary policy, apparently more instruments than were really required. But three kinds of difficulties made matters less simple than they might have looked to be. (The following points are more thoroughly discussed in J. Tobin, 1990.)

In the first place action was not instantaneous. Lags were unavoidable in diagnosing exogenous shifts, in obtaining and implementing decisions through the governmental machinery, and in seeing the effects of these decisions through an economic system within which many types of lag were also present. Various means of stimulating or restraining aggregate demand were not exposed to the same lag structure, and this in ways that varied from one country to another. The best choice of instruments then depended on national specificities as well as on the need for a more or less speedy intervention.

In the second place many erratic shocks on the various components of demand and on the other variables of the economic system could not be forecast. Economic policy then could not achieve perfect control. Moreover the accuracy of the control would depend on the choice of instruments. The presence of uncertainties recommended in particular that governments use several types of instrument rather than a single one, in the same way that a portfolio manager does better to diversify his investments.

In the third place even the best control of aggregate demand might lead to an outcome that leaves something to be desired. Early on it was realized that Phillips law implied a trade-off between employment and inflation restraint: a high aggregate demand would lead to low unemployment but at the cost of accelerating inflation. There was then a NAIRU, a "non-accelerating inflation rate of unemployment", and demand management stabilizing policy could do no more on average than keep unemployment around the level imposed by this NAIRU. If this looked uncomfortably high, instruments other than those of budgetary and monetary policies might have to be used. A role was then often proposed for price and income policies; but strong reservations against them were also expressed because of the disruption they would impose on the proper working of the price system and/or because of the lack of power of those policies in achieving their main objective, namely controlling inflation.

3. Institutionalists, post-Keynesians and regulationists

The conception of macroeconomic policy whose broad lines I have just recalled was not unanimously accepted. Often moved by ideological concerns a number of economists expressed dissatisfaction and argued for something that would be wholly different and give to the State either much more or much less power. With the hindsight we are afforded by the passage of time, how should we analyze these dissenting views? What should we now remember of them? Let us begin with those that attracted sympathy on the radical side of the political spectrum.

In Europe in particular there has long been a substantial group of economists objecting to the actual forms of modern industrial development and this group has always been particularly popular in Latin countries. During the post-war years many of those economists imagined that proper planning could implement a different type of development and some of them proposed guidelines for what they claimed to be appropriate strategies.

These days it would be too easy merely to dismiss all this activity as having completely failed. Neither the priority given to building a base of heavy industries ("les industries industrialisantes" sometimes stressed by F. Perroux), nor the inward looking protectionist strategies, nor again the belief in the intrinsic value of socialist management ("l'autre logique" of some French economists) brought, where they were tried, the favorable consequences that wishful thinking had anticipated. I do not believe, however, that, taking argument of this experience, one would be justified in neglecting the reflections of a whole school of thoughts; certainly the motivations that inspired it are significant and will appear again in the future.

Commenting on the ideas of this school and on the lessons to be remembered from its reflections and its history, I shall not stress the many subdivisions or even oppositions I ought to recognize were I able to devote more space to this aspect of my subject. Speaking of a school of thoughts is even, I admit, an "abus de langage", but an admissible one here. For our present purpose we have mainly to consider the three reasons that led these economists to object to the prevailing wisdom: they wanted different policy objectives, they had a different vision of the functioning of the economic system, and they assigned a different role to the scientific discipline of economics. Since I have more to say on the second reason than on the other two I shall finish with it.

The teaching on economic policy formation clearly distinguished, as indeed it must do, between the choice of the ultimate objectives assigned to policies and the determination of the best combination of instruments that will permit the reaching of these objectives: political authorities have to choose the objectives; these being given, economists determine the required actions. In practice, however, this teaching was supposed to be applied to the particular goal of full employment with stability, a goal that was taken as corresponding to political wishes and as being reasonably within reach. But it was precisely this double supposition that some economists were not ready to accept.

For them full employment was not enough. They wanted a different society from the one in which they were living, a society that would be more equal and give more power to the workers. Even when admitting the existence of a trend toward better social protection in European market economies, they viewed it as being intended to save the capitalist economic system, while they claimed a profound change of system. Many of them were also skeptical with respect to the idea that full employment could long be maintained by demand management policies.

Moved by strong ethical feelings, these economists deviated from the rest of the profession as regards their conception of economic science, and this in two ways. In the first place they wanted a broader definition of the field, some even claimed to embrace all social phenomena simultaneously, thus denying the usefulness of a discipline pretending to isolate strictly economic phenomena. In the second place they objected to the idea of a neutral and "value-free" science; neutrality was impossible, according to them, when the issues concerned social phenomena; scientists had to express their views on the objectives to be assigned to policies; they had to advocate for the changes they thought to be desirable. G. Myrdal is probably the best-known among the economists who strongly voiced these two points (see for instance G. Myrdal, 1979).

I must react here on this conception of the economic science and express my conviction that the history of the last two decades gives support to the majority view. Absolute neutrality and objectivity is of course an ideal, never fully achieved, but an ideal that professional economists should aim at, because their role is to inform about the facts and phenomena in their field of competence; collective choices are wiser if they are better informed; the economist's testimony is discredited and therefore useless if it is found to be blurred by his own preferences. Similarly we economists should not pretend to give to our discipline ambitions that it cannot meet; the main reproach addressed to us by our fellow citizens is that we are not good enough at understanding and forecasting economic phenomena; it is not that we do not explain the whole socio-economic evolution. Limiting the ambition of economics in this way does not mean, of course, that we should neglect the social, institutional or political determinants of economic phenomena, but only that we cannot reasonably pretend to explain these determinants also.

This disagreement with the school of thoughts I am now discussing does not mean either that I should recommend paying no attention to its work. On the contrary the recent evolution of ideas gives at least some partial support to its criticism of the vision that was common in the '60s about the functioning of the economic system; the same evolution of ideas should increase the interest brought outside of this school to some of its research work.

What was called by some "the neoclassical synthesis" gave its theoretical background to the vision widely held in the '60s. It assumed that a proper understanding of economics was reached with on the one hand general equilibrium theories of the Walrasian type, particularly appropriate for long term phenomena, and on the other hand Keynesian demand analysis, sufficient for dealing with macroeconomic short term phenomena. The criticism for long addressed to this synthesis from the left side can be expressed in modern words. On the one hand market disequilibria are more prevailing and significant than the synthesis admitted: they may extend much longer and, even when small, they may play an important role if they persist. On the other hand supply analysis is at times more important than demand analysis because productive capacities do not spontaneously adapt in a proper and efficient way unless some conditions ignored by demand analysis are met. For these two reasons studying the trends and disparities in the profit rate has a crucial role to play in attempts at understanding capitalist evolution.

The research work of this school of thoughts provides us with at least two interesting kinds of contribution. Some of them may be called "historico-descriptive" because they aim at showing what are all the main features of the socioeconomic evolution in our countries; they take advantage of the possibility of quantification now offered by statistics, econometrics and even macroeconomic modelling; but they want to avoid restricting attention to the commonly considered economic aspects and they do not express their findings within a well defined theoretical framework; at most they venture to propose very broad hypotheses within which somewhat convincing rationalizations of the facts can be presented. The program recently launched at WIDER under the leadership of S. Marglin gathers some of those now engaged in this type of work, whose inspiration follows a long tradition in economic history. Even when contributions of this type do not lend themselves to generalization, they bring to our attention cases in which the approximations used in our common way of thinking are particularly weak.

A second kind of interesting original contribution deals with the role of institutions, broadly understood, on some specific economic phenomena. Particularly noteworthy in this respect is the systematic study of disparities in practices concerning labor management and wage setting. This study was undertaken long ago within labor economics, but until fairly recently it has been almost foreign to mainstream macroeconomic research. One should note here that recent developments in microeconomics also bring to the forefront the role of norms and institutions as ways of dealing with the coordination problems that incomplete and asymmetric information, as well as costs of various kinds, impose on contractual arrangements. There is thus a range of questions for the study of which new methodologies seem to be emerging.[1]

4. Classical macroeconomics

The common wisdom of the '60s was also rejected at the time by economists who remained faithful to the main economic teaching of the first two decades of this century and kept arguing for a free market system. During the last twenty years, these economists have had the satisfaction of seeing that within younger generations their ideas were not only again attracting interest but also stimulating innovative research work. In some quarters the "new classical macroeconomics" imposed the new look one had to adhere to.

In order to understand what the existence and growth of this intellectual current may mean for the study of economic policies, one has to distinguish three attitudes that may be found in the same individual but have different implications, i.e. a general distrust *vis-à-vis* any kind of government action, the feeling that Keynesian policies will fail to reach their objective, or a full confidence in the spontaneous working of market economies.

I shall be brief on the first attitude, which inspired the so-called "public choice" movement. According to it governments cannot be relied on as acting for the common good. Ministers are politicians moved by the wish to remain in power or at least be re-elected. The actual working of the political system gives no guarantee that such motivations will lead to collectively favorable decisions. Government administration is made up of civil servants who are pursuing their own interests and are in any case

[1] This evolution is not always welcomed by those who have long considered themselves as "institutional economists". Indeed, a recent International Economic Association round table was marked by the tension so created. See T. Shiraishy and S. Tsuru (1989).

badly informed of what would be needed. (In his Nobel lecture J. Buchanan (1987) was careful to dissociate himself from the interpretation of the public choice theory I am now referring to, which he attributed to "overly zealous users" of the economic theory of politics.)

I am not particularly competent when it comes to judging the scientific value of such an analysis, which I consider as belonging to political science rather than to economics. If I had accepted its most extreme conclusions, I would have immediately stopped working in the study of economic policies. Fortunately, my life in the French civil service, my acquaintance with a number of ministers, and my relations with international political organizations permit me to know by experience that the cynical view entertained by some public choice theorists is no closer to the facts than the naive view of an always benevolent, perfectly informed and effectively powerful government. In my present capacity, I might remind you of Jean Monnet and of the many people who, following him, sacrificed their own interest for the improvement of the society in which their grandchildren would live.

The second attitude was more specific. It raised strong reservations about active demand management policies and was often called "monetarism". As economists well know, it went through two stages. M. Friedman was the advocate of what was later named "Monetarism mark I". He claimed that demand management could only have temporary effects. Keynesians were, he argued, concentrating their attention on a short term trade-off between unemployment and inflation; this led them to recommend policies that were biased in the direction of being too stimulating, because the adaptation of price expectations to observed inflation made the medium term effect much more inflationary than appeared on a Phillips curve tracing short- terms changes; in the long run expansionary demand management would lead to ever increasing inflation rates if it kept aiming at a lower unemployment rate than what he called the "natural rate". Although the macroeconomic theory used by Friedman in his argument was not quite explicit and remains disputable on various scores, I think a valid message to policy-makers ought to be remembered: the inflationary cost of expansionary demand will extend over many years; this does not rule out such an action but makes it less attractive than was often thought in the '60s.

"Monetarism mark II", which bloomed in the '70s, claimed much more, namely that macroeconomic policies were ineffective, even in the short run, except perhaps to the extent they could take private agents by surprise. In order to see why this was so, one had only to consider the formation of the expectations and the best hypothesis economists could make in this respect, namely, so it was argued, that expectations are rational.

It would be out of place here, and would need too long a discussion, to show why such claims have only a weak scientific validity; one would have to consider some relevant empirical tests as well as the theoretical foundations of the assertions, with the role of the market clearing hypothesis in particular. What the theory of economic policy ought to remember, from the research work carried out by this school, is not the main positive propositions that it aimed at proving, but rather a number of critical questions it raised about the methodology that had been defined and promoted in the '60s. I shall come back to this point in a moment.

The third attitude was a general confidence in the idea that the spontaneous economic evolution generated by the operation of a free market system would be as satisfactory as was feasible, so that pretending to improve on this evolution was bound to failure. After some time it appeared in particular that the main issue behind the debates initiated by "monetarism mark I" was to know whether market economies needed to be stabilized: Keynesians like F. Modigliani (1977) had thought so, while M. Friedman (1968) had denied it, showing however a lack of concern for short term perturbations around a natural long run path. Much more recently the real business cycle literature went further, arguing that macroeconomic fluctuations were the natural and efficient response to irregularities in technical progress (see for example R. Lucas, 1987, and C. Plosser, 1989). Again time is too short for me to explain the lack of credibility of this recent theory.

Dealing more generally with confidence in free markets I should also stress that spontaneous convergence toward a satisfactory long-run path remains an uncomfortably pending issue in economics. Recent history shows how important microeconomic incentives can be for the efficiency of production and exchange. This we should not forget, in particular because some policy interventions may destroy incentives and have allocative costs. But this history also raises worries about the possibility of major systemic instabilities that may be quite difficult to control.

Coming back to my main subject I may give my own assessment, after these many years of classical criticism directed at the economic policy teaching of twenty years ago. It seems to me that the basic core of this teaching stood well under the fire, but that it now needs a less confident and less simple-minded presentation than was common in those days.

The study of macroeconomic policy needs to be more prudent and more sophisticated with respect to both the model of the economy and the problematics of policy action. The model should take proper account of supply conditions and of expectations formation; it should be more generally consonant with the present state of our macroeconomic knowledge, which we shall consider in the next lecture. Even so, it cannot pretend to be in all respects immune from important misrepresentations of the relevant phenomena.

Economic policy makers should no longer be presented only as choosing the values of a set of instruments so as to maximize a social welfare function under the constraints defined by a model of the economy, a model moreover that could be taken as deterministic because of nice certainty equivalence properties. Irreversibilities and non- linearities make the latter properties less powerful than was thought. More importantly, a policy should seldom be viewed as an isolated action but much more frequently as a rule to be applied over time by a government while the surrounding or prospective economic conditions evolve. It should be recognized that private agents may change their behavior when the policy rule is revised. This private reaction will itself depend on the credibility attached to the idea that a given rule will be maintained in the future, when governments are replaced, or even without any such replacement simply because decisions need not be time consistent (by which I mean the following: it may be that, in a year from now, one will find it interesting to deviate from what appears today as an optimal program, which specifies not only present decisions but also the strategy to be applied in the future).

The criticism raised by classical economists, as well as the experience of the last two decades, has also led to giving economic policy formation a different time perspective. It should not focus attention on the next year or so, as was common at the time of "fine tuning"; this might be much too short-sighted, not only because of the risk of a destabilizing stop-and-go alternance, but also because medium term requirements may be quite different from short term ones and are of course much more crucial for economic welfare.

The revision of the time perspective, the increased difficulty of the demands then addressed to macroeconomic scientific knowledge, disappointment with the performances of policies at least during the decade 1975-85, and the internationalization of economies, all these developments have also changed the views commonly entertained about the effectiveness of macroeconomic policy and made them much more modest. This must also be fully recognized.

5. Intellectual fashion and experts' resistance

Reflection on the nature and role of economic policy should also look at the history of the last two decades from a different point of view. Indeed, those living in academic circles or close to them might often have believed that the methodology taught in the '60s was completely overthrown by the critics that came later from both sides of the political spectrum. But on the contrary, when one considers the methodology used today in government agencies, international organizations, central banks and even in most independent institutes, which are often related to universities, one actually sees a continuity. It is true that economic advisers no longer have the aura they enjoyed in the '60s; quite naturally they share the disrepute attached to past policy failures. But from a technical point of view the evolution of the practice after twenty years has not been as great as had to be expected. How can this be explained?

One possibility has to be dismissed, namely that the explanation would be the lag between new ideas and their implementation. Any change of methodology is subject to some such lag since new ideas cannot be directly operational for technicians in charge of applications; appropriate tools have to be developed and teams of experts have to learn new ways of working; they may even resist the change if they are afraid of becoming obsolete or if they are lazy. But in the present case this type of explanation clearly does not suffice. Twenty years is too long a period for the lag in question. And critics have not come out with proposals that have been recognized as good and that practitioners could apply. Whether one turns attention to the left or to the right, one does not see any alternative methodology that would begin to emerge and that one could anticipate as likely to supersede present usage within the coming decade.

Particularly revealing in this respect is what happened when some of the most vocal opponents to existing practice were suddenly called to advise newly elected governments. In some instances, after various initial contrary pronouncements that had no effect, but in other instances without even so much, they accepted the prevailing way of formulating a diagnosis on business trends or of analyzing the likely impact of contemplated decisions. After 1981 those advisers of President Mitterrand who had been advocating "l'autre logique" or "l'anti-économique" were not long in accepting the analysis of experts who continued using the same methods as before. A similar story can be told about the supply siders who arrived with President Reagan in Washington or about the few new classical macroeconomists who have joined the US administration in recent years (see the beginning of the article of B. McCallum, 1989). Even in Britain, where the change of economic philosophy with Mrs Thatcher was more determined than elsewhere, former methods of analysis have been restored.

Those closest to proposing an alternative methodology were some macro econometricians promoting the use of the VAR technique (vector autoregression technique) (see in particular T. Doan, R. Litterman and C. Sims, 1984). Discussing their ideas is interesting and I shall devote some attention to it in the next lecture. From our present point of view let me simply say that a widespread adoption of their approach is very unlikely. I might also point out the curious fact that their work was received with sympathy by monetarists but that it gives no place to the thesis of a natural stability of market economies.

The best explanation of what may appear to some as a paradox is that the criticism raised against the methodology of the '60s was overemphasized in academic and intellectual circles. I have recognized in this lecture that some important lessons must be drawn from this criticism. But it is not as destructive as has too often been said. On the contrary, experience with the application of the methodology has shown that the main causes of economic policy failures were related to mistaken assessments on particular phenomena and not to undue reliance on past technical teaching.

The whole matter brings to the forefront a kind of malfunctioning of our modern world, in which fashions play too large a role, or rather are taken too seriously. This applies particularly to the profession of academic economists, where frequent claims for complete revisions of prior beliefs far exceed what has normally to occur in a lively science, which must of course avoid petrification. The best brains are fooled neither by the originality of bright new ideas nor by the sophistication of their theoretical and/or mathematical elaboration. However, within the ranks and files many are overly impressed by the few individuals they consider as stars, whom they must praise and would like to imitate. Unfortunately these ranks and files exist all over the world, even in the most remote places. The stars should be better aware of the responsibility that they are, perhaps unintentionally, assuming.

II. Queries about the value and foundations of macroeconomic knowledge

In no discipline can one discuss problems raised by the application of science without considering the reliability of knowledge in the field. This remark particularly applies to macroeconomics nowadays. The general public is often led to believe that economists know very little that would be definite and that they disagree among themselves about everything. A recent example is given in France by the publication of a book written in a satirical vein dealing precisely with the reliability of supposedly objective assessments made by economists (see B. Maris, 1990); the point is not so much the substance of the book but rather the considerable repercussions it immediately provoked in the press with accompanying comments on the lack of perceptivity of economists ("les économistes sont-ils nuls?" was the title of the material published on this occasion by *Le nouvel observateur*, 8-14 March 1990). Clearly, we must face the question: is our knowledge not too imperfect to permit us to recommend policies? This will be the subject of the first section of this lecture.

Considering the question will induce us to go a little more deeply into the foundations of our macroeconomic knowledge. For a number of important policy issues the nature and reliability of recommendations given by advisers will indeed depend on the nature and solidity of these foundations. This is why I shall devote section 2 to a general presentation of the methodology of macroeconomics; I feel fairly confident that, at the level of generality I adopt, my presentation will not be too questionable, even if it anticipates somewhat on a consensus that has not yet been reached.

Perhaps more questionable will be the two following sections 3 and 4 in which I shall consider two substantive aspects of the microeconomic realities underlying macroeconomic phenomena, individual rationality and market efficiency respectively. Various macroeconomic theories, with different policy implications, differ precisely in that they fail to make the same hypotheses about these two aspects. Objectivity then requires testing which of these hypotheses best fit the facts. Such tests must be given high priority on the agenda of macroeconomic research.

I shall end with section 5 which in particular discusses an issue about which an assessment matters for the policy questions examined in the following two lectures, namely the Schumpeterian impact of European unification. In this example one can see some of the limits to our macroeconomic knowledge and realize how disturbing they are. Bringing this truth out into the open will, I hope, help in forcing us to take note of one of the greatest challenges faced by our discipline. I would hope that it might stimulate fruitful research, but I must confess my ideas are uncertain as to how this research should go.

1. How reliable is our knowledge?

For most users a perfect accuracy of economic knowledge would mean the absence of any error: no error in the data concerning the past, up to yesterday, no error in economic forecasting, and no error in the assessment of effects that changes in circumstances or in policies may induce. Clearly such a perfect accuracy cannot be reached. But how far are we from it in each of the three aspects of macroeconomic knowledge I have just recalled?

(i) Great improvements have occurred during the past fifty years in statistics. I shall not dwell on them, but rather remind you of the existence of remaining significant inaccuracies that are often overlooked, even by those people who otherwise proclaim a general distrust of statistics. In some rare cases an indicator of this inaccuracy exists, for instance when the same variable is measured by two independent methods (as is the case for the number of people unemployed, evaluated either from a labor force survey of households or from administrative records of labor exchange offices). The existence of inaccuracies is also revealed in some cases by the discrepancy between various statistics, for instance the fact that the current balance of payments of all the countries in the world do not add up to zero, as they should, but to a sizable and variable negative number. More often, however, statisticians have a feeling, rather than a measure, of the presence of inaccuracies.

Imperfect accuracy may, of course, be innocuous for users who for instance may only need to know an order of magnitude or the size of a variation rather than the absolute level of a variable. Most frequently no harm is really done, notwithstanding the protests, by provisional aggregate figures that have to be substantially revised when more complete basic data reach statistical agencies. But this is not always so.

Speaking as I do now in general terms, I must stress that, among the various kinds of wide uses of statistics, intercountry comparisons are the most vulnerable to damaging error. Indeed, for our present purpose such comparisons should not only be seen as providing the means of econometric inference on specific issues; they also strongly influence the general public's judgement about the relative performance of alternative economic systems and about the relative success of alternative policy strategies. Unfortunately the international comparability of statistics is often weak. The problem has long been known by statisticians and international organizations that have made efforts to improve on the situation, particularly within the Common Market. Moreover, the problem should not be taken as a reason for preferring impressionistic assessments to serious statistical evaluation. But in quite a few cases such evaluation remains imprecise, while the multiplicity of factors that reflection ought to take into account would actually require an accurate measure of each.

One cannot avoid thinking today about the dramatic change of dominant views held during the past decades on the performance and prospects of Eastern European economies. Part of the explanation no doubt comes from the gigantic misinformation to which we have long been exposed concerning the real situation in these economies. But part of it may also come from the fact that a number of economists have chosen uncritically to believe and diffuse an image that fitted their own ideological preferences. Today, as the change of the economic system in Eastern Europe is a major policy issue for us, we should be careful to achieve as much objectivity in our assessment as is feasible. Improving on present knowledge of the facts would already be quite a valuable research objective.

(ii) How effective is economic forecasting? The answer clearly depends on a standard for judging when errors are excessive. Some people do not seem to realize that the standard cannot be the absence of any error. This appears particularly when one notes that nowadays critics usually put on top of their list of laments the failure of economists to predict crashes and other price movements on the stock exchange. They have not understood that, if the exchange perfectly valued the price of shares, changes in this price would be unpredictable: the best forecast for tomorrow would be today's price; hence no change, however large it may turn out to be, would prove that the forecast of no change was not the optimal one to make (since I do not believe evaluation on the stock exchange is perfect, I am ready to accept a part of the blame, but only a very small part of what I am currently hearing). For most other economic variables the situation is not as extreme; but perfect foresight remains unfeasible.

Since I am now protesting against unwarranted criticism, I may add that in some cases the forecasting errors of economists are to a large extent due to the forecasting inabilities of others who should know better. We are blamed for instance because we were not good at predicting large changes in the price of crude oil. But who gave us reliable forecasts of political events in the Middle East? Moreover, were we not told by specialists in 1974 that a large quantity of oil would be extracted from tar sands if the price of the crude remained above seven dollars per barrel?

The best standard against which to judge a forecast made by economists on economic matters would be the forecast simultaneously made by others on the same variables. The two are not independent, of course. But if it turns out that economists make smaller forecasting errors, one seems justified in concluding that their contribution is positive and potentially useful for the decision process. I do not know of any systematic comparison of this type. But I can testify personally that through the period 1975 to 1982 French economists were bitterly accused because they were forecasting a rapid increase in unemployment, an increase which most others were refusing to see and which in fact turned out to be still larger (some figures about this are given in E. Malinvaud (198), p. 111, footnote 27; they could be updated).

(iii) The available literature provides us with another kind of comparison, one that is actually even more interesting from our present point of view because it bears not only on pure forecasting but also on the measure of effects to be expected from changes in the values of policy instruments. The comparison concerns the use made of macroeconometric models that have been constructed precisely in order to serve for policy advising. The results may be said to be both comforting and disturbing (see V. Zarnowitz, 1978; R. Fildes, 1985).

They are comforting because they show that macroeconometric models lead to smaller forecasting errors than mechanical extrapolations of the time series of the respective variables. This result appears when the forecasting horizon is a year ahead or more. For the very short term the use of models has a dubious value; on the other hand, no economic policy decision can have such a short horizon.

The results are disturbing because the accuracy remains weak. This is so even for conditional forecasts, which are computed ex post by assigning to the exogenous variables of the model the values they actually had (values which are not all known in practice at the time of forecasting). This disquieting objective assessment concerns not only the use of macroeconometric models, but much more generally our scientific knowledge to the extent that it is embodied in these models. Indeed, we cannot pretend that our advice will lead to a tight control of economic evolution. Considering the stakes, however, even a loose control is better than no control at all.

However, two questions relating to the use of models for macroeconomic policy evaluation are worth considering. First there is the appropriate size of the model, i.e. the level of detail it goes into in its representation of economic variables structures and behavior. Any model, however big, grossly simplifies. This means that it is exposed to aggregation errors and that it is not directly suited to the study of all kinds of policy measures one may want to consider. Conscious of this, model builders in the late ’60s and ’70s often chose very large systems. Nowadays there is a return to smaller systems, at least for current work that has to be quick and flexible. This is due to the realization that size does not contribute much to accuracy; it is also certainly due to the decrease in the demand for policy evaluation: as confidence in economic advising receded, one saw that decision makers were less eager to ask economists to work out the consequences of many alternative policy packages.

The second question is to know whether the use of macroeconometric models does not lead to bias in the estimation of the impacts of policies. I was confronted by the question in the late '70s when I was told that the models in use at INSEE gave a too favorable vision of an aggregate demand stimulation or of a devaluation of currency, but a too unfavorable vision of a restoration of business profit margins. This experience inspired some of the comments I presented in E. Malinvaud (1981). Similarly the criticism that the models neglected major changes in the expectations of private agents after a policy shift was made, either in general terms or more specifically on some occasions, as for instance in England in 1980 when models were said to overestimate the employment cost of the credible disinflationary policy of Mrs. Thatcher.

Since models are not perfect, they may indeed be subject to systematic errors. This eventuality should always be kept in mind and tested when possible. But as long as no evidence exists on the direction of the bias, no consequence follows as to the evaluation of policies.

My personal fear is not so much the existence of an important bias but rather an increasing degree of uncertainty in the evaluation of effects as one moves from short term decisions, intended to have an impact in the near future, to medium term ones, whose impact will be more progressive but more durable. It may very well be then that econometricians are unable to say anything precise about medium term decisions; this may be interpreted as meaning that these decisions will have no effect, which is quite a different thing of course . I tried to spell this out a little more thoroughly in E. Malinvaud (1989).

2. About the methodology of macroeconomics

Although a significant part of macroeconomic evolution will always remain unpredictable, we must strive to make progress with respect to the present situation. It is fairly safe to say that substantial progress can only come from a better knowledge of phenomena and not from a higher sophistication of forecasting techniques. Improvement in these techniques will always be welcome and should not be discredited, but it has only a limited scope as long as macroeconomic behaviour is not more precisely understood. Thus the whole of macroeconomic research is potentially useful for policies. This being the case, it is not inappropriate for me from now on in this lecture to outline the methodological principles which in my view this research should recognize in order to bear fruit. I consider the following ideas rather trivial, but they are worth repeating because they do not seem to be unanimously accepted.

The main point is to stress that macroeconomics requires an intimate combination of theoretical analysis of underlying microeconomic operations on the one hand, and inference on data on the other. Some have tended to reduce one or the other of the two parts to a minimum. I strongly believe they cannot succeed.

A long line of economists has been motivated by the aim of building macroeconomic theory directly from macroeconomic observation, in the same way that the laws of physics were first discovered by the study of macroscopic manifestations. Considering the work of a group of the most modern representatives of this line of thinking shows the insuperable difficulty of such an undertaking.

C. Sims has argued for a direct statistical analysis of the set of time series concerning the main economic aggregates (see for instance C. Sims, 1980, or more specifically related to forecasting T. Doan, R. Litterman and C. Sims, 1984). In the spirit of data analysis he suggests a fit of these series on a general vector autoregression model that should be free of *a priori* restrictions that some theorists might think imposing. This approach may detect or confirm some regularities appearing in short term fluctuations. But it can hardly do more. Indeed, in practice it has to restrict its investigations to a small number of series and to assume the autoregression to extend only on a small number of successive observations. I may predict with confidence therefore, that claims once made by the proponents of this empirical methodology will not be fulfilled.

Indeed, the approach does not pay enough attention to two important aspects of the origin of the macroeconomic time series and of the phenomena that explain their actual values. Firstly these series are not obtained by controlled experiments of the type common in most natural sciences; they are merely observations of a reality that is subject to the actions of many causes. Recognizing all major causes and disentangling the part to be attributed to each of them is difficult in principle and would require in practice many more observations than are typically available, unless other sources of information can also be used. Secondly, economic activity takes place in a social, political, legal and technical environment which varies. This does not make knowledge of economic phenomena intractable, because the impact of most variations can be identified. But precisely this requires a theory of the phenomena.

While the economist, in comparison with his colleagues of the natural sciences, is handicapped by the paucity of his macroeconomic observations, he has on the contrary the advantage of a direct understanding of the elementary behavior and operations that generate the phenomena he has to study. Indeed, he knows what households and firms are, why they work and trade, which constraints they are subject to, and so on. Neglecting all this information, as the empirical approach proposes, cannot be an efficient research strategy. Moreover, serious theoretical analysis is clearly required in order to retrieve what this important part of our information implies about macroeconomic phenomena. The proper strategy may be sketched out as follows: in order to obtain a good model of a phenomenon we must first derive a specification from more or less embracing but also appropriate microeconomic theories; within the framework of this specification macroeconomic data will show us features that would otherwise completely escape our vision; even microeconomic data will then be useful for understanding macroeconomics.

Taking a stand at the opposite extreme of the empiricist position, another long line of economists has been motivated by the aim of building a unified microeconomic theory that would explain all economic phenomena while avoiding the simplifying hypotheses that inevitably appear in the derivation of macroeconomic models. This last methodological requirement means in particular that, except perhaps until the theory is complete, macroeconomic data are useless. Actually, with only very few exceptions (such as W. Hildenbrand, 1989), this line of economists pays no attention to statistical data at all.

I need not insist on the importance of the (neoclassical) microeconomic research program, whose achievements have proved to be fruitful in many respects, in particular for the clarification and progress of the conceptual analysis of many issues. However, keeping in mind the subject of these lectures, I must say that the conclusions arrived at so far are much too indeterminate to provide us with what we need. This is often forcefully argued, for instance by A. Kirman (1989). Moreover we know that it will always be so: the system which any microeconomic theory of some generality leads to is somewhat complex and contains many unknown parameters; hence its solution may have almost any kind of behavior.

This cannot mean that economic phenomena are wholly unpredictable. It simply means that, in order to predict them, one has to use more than pure logical deduction from the general hypotheses which our direct knowledge of elementary behavior permits us safely to select. This extra ingredient is of course provided by all the data at our disposal, microeconomic as well as macroeconomic, including those that a healthy movement of experimental economists now obtains. Induction from all kinds of data will permit us to make our models of the economic system more specific than pure microeconomic theory would grant.

The methodology whose basic elements I have just outlined views the economy as a system in which individual agents, be they persons, firms or other institutional entities, interact in various ways that are more or less codified, each agent having its own aims and its own degree of autonomy. In other words I am accepting at least the core of what is sometimes called "methodological individualism". But there is no available alternative if one believes, and I do, that economics has to progressively organize and accumulate knowledge in its field of competence in the same way as any other science.

But accepting this does not imply endorsing all the principles that some economists tend to present as necessarily ensuing. We must keep our eyes open to all the complexities and "imperfections" of the economic system;

we must take due account of them where they occur. This is why I now intend to discuss the two main sets of issues that lie at the foundation of economic modeling: the limits, if any, of first individual rationality and second market efficiency.

3. Individual rationality and its limits

I am not going to enter into a philosophical discussion about the meaning of rationality. For the economist it is simply the notion that individual agents behave so as to best achieve their aims, taking account of all the opportunities and information available to them, as well as of the constraints imposed on them. In the development of theories and models, when applying the rationality principle, one has to particularize it with specific, and even occasionally somewhat narrow, hypotheses on the aims, the opportunities, the information or the constraints.

The first thing to say about the rationality principle is how useful it proves to be. Its contribution to making economics better organized and more rigorous has been tremendous and will continue to be. Without it one cannot imagine how one could mobilize all the direct knowledge we have about elementary economic activities, a knowledge of which I have already signalled the importance. What is disputable hardly concerns the principle itself but rather its application.

First I may quickly recall how the particularization of the principle follows from restrictive hypotheses that are introduced in the representation of the aims, the opportunities and the information of the agents. For instance, one assumes that the individual behaves as if he were caring only for his own consumptions. Moreover the utility function explaining this behaviour is often supposed to be more or less strongly separable with respect to time and/or uncertain events. Firms are said to aim at maximizing profits, but this has to be made more specific when uncertainties are present because firms have more narrow trading facilities than in an ideal system in which markets would exist for all contingent commodities.

For the specification of the constraints one often assumes away rationing on any markets. This means in particular that liquidity requirements are ruled out, as well of course as involuntary unemployment. We should also be aware of the common neglect of additional restrictions to which agents may *de facto* be subject not only because of regulations but also because of customs or social norms.

Considering information and the nature of anticipations I may speak of restrictive hypothesis when one assumes exact expectations (or else "rational expectations") in a study of short or medium-term evolutions, for which agents have an imperfect knowledge of the facts and an imperfect understanding of the phenomena. *A fortiori* it is highly restrictive to assume that agents believe with full confidence in the model that a particular theoretician has chosen for representing the working of the economy, a model which may actually be rejected by some of his colleagues.

Of course, one cannot specify a theory without making restrictive assumptions. The ones I have briefly surveyed are not necessarily bad. But they are clearly not implied by the rationality principle, as I defined it. They are good or bad, depending on what the alternatives for the particular problem under consideration are. Often the alternative may look *ad hoc*, hence arbitrary.

But when representing economic behaviour one must pay attention to all observations about it available, even if they do not quite agree with the rationality principle. In some cases simple hypotheses, even though accused of being *ad hoc*, fit the observations better than the assumptions derived from a strict application of the classical teaching of microeconomic theory. Indeed, as H. Simon has argued for many years, agents have only a "bounded rationality" in dealing with the situations they are facing; they do not fully maximize; they tend to select decisions that appear natural to them; these decisions may depend on habits that are no longer fully adequate, as well as on the procedural context in which agents are placed rather than only on the final results achieved (see for instance H. Simon, 1982).

These comments are not meant to give support to loose thinking. On the contrary they stress that we cannot rely on a dogmatic insistence on the rationality of behavior and that therefore good modelization is a real challenge for which a careful study of observations is indispensable.

4. The functioning of markets

Any positive economic theory has to represent what the markets perform. This representation is not always obvious since markets are abstractions, except in a few cases. But our explanation of the phenomena most often depends on what is assumed about the functioning of markets. It is therefore not surprising that the answers given to two questions, among others, appear to be crucial for the theory of macroeconomic policy: do markets clear? Do financial markets correctly value the prices of assets?

The majority of economists thinks that cases of non-clearing or incomplete clearing are sufficiently important to deserve attention; in particular involuntary unemployment really means a lapse from labor market clearing, and one that deserves attention. But some economists deny this. Similarly, some of us believe that exchange rates between national currencies, share prices on the stock markets, and even interest rates and the prices of some widely traded basic commodities, are subject to speculative bubbles and therefore at times deviate from the values that an orderly development of real economic activity would require. But other economists say that markets are perfectly efficient in transmitting to prices the effects implied by new information as it appears.

The answers given to these two questions are important because they lead to different assessments of the effects of exogenous changes, and in particular of policy changes. If unemployment can only be frictional, it will be little affected, if at all, by an increase in public expenditure or by an expansionary monetary policy; if such is the case, all the Keynesian theories deal with a different world from ours. If freely operating markets can be subject to speculative bubbles that perturb the evolution of productions and consumptions, stabilization of these markets will perform a useful role, whether it is achieved by controls and regulations that are not otherwise damaging or by appropriate public interventions that counteract private waves of over or undervaluation.

Hence, the lack of agreement on such questions among professional economists shows not only the limits of our objective knowledge of macroeconomic phenomena, but also where our research priorities ought to be if we want to contribute in a better way to economic policy making. As long as we do not agree, much of our advice on macroeconomic policies will have weak scientific authority and further elaboration of theories will have little use in this respect.

Objective answers can only result from reference to facts. But the difficulty of the choice is not only due to data limitations. There is also a problem of the alternative hypotheses one has to choose from in order to specify the appropriate theory, a theory moreover that has to be expressed in terms of the main macroeconomic variables. Since I must be brief, I shall consider here the market clearing issue only, and limit my attention to the labor market. In W. De Bondt and R. Thaler (1989) readers may find references concerning the efficiency of valuation on financial markets.

Business fluctuations are the main domain of application among those for which debates about the labor market clearing question matter. Thinking of this domain we may define as follows the two competing hypotheses that give different answers to the question:

H_0 – Variations in employment and the wage rate are simultaneously explained by variations in the other determinants of the supply of labor and demand for it, this supply and demand being constrained to change by the same amount.

H_1 – Important discrepancies often exist between changes in the supply of labor and the demand for it. Variations in employment are explained mostly by variations in the determinants of the demand for labor when there is an excess supply.

No doubt my formulation could be disputed and I am ready to change it to some degree. I believe, however, that two significant features of it are appropriate. First, the hypotheses say more than just market clearing or non-clearing; they specify the intended explanatory use, (although restricting attention to the proximate explanations given by a partial analysis of the labor market). This feature makes the hypotheses more complex and not fully complementary to each other. But since the true theoretical choice is between the two packages defined respectively by H_0 and H_1, these packages should be made fully explicit in the specification. Second, the definitions refer to variations and changes, thus pointing to the intended domain of application and also avoiding the difficulties that concern the definition of levels, for the supply of labor and frictional unemployment, as well as for the demand for labor and frictional vacancies.

Why does the profession of economists find it difficult to decide unanimously which of H_0 and H_1 best fits the available observations? Studying this question, particular as it is, helps in understanding the problems raised more generally by induction in macroeconomics. Part of the answer comes from the fact that, in order to conclude on the basis of observations, one needs to introduce additional secondary hypotheses whose validity leaves room for discussion. It would be interesting to examine the actual importance of this remark for each one of the four kinds of tests that have played a role in the present instance. But this would have to be rather detailed and would obviously lead us too far out of our main subject. I shall merely list these four kinds of tests.

First one may ask whether variations in employment can be fully explained by variations in frictional unemployment. One has then to evaluate successively the effect of each one of the factors that may have acted on frictional unemployment and to add up these effects. The difficulty then comes both from the possibility that some important factor has not been identified and from the inaccuracy of the results of econometric estimates used in the evaluation of some effects.

Second one may compare the performance of two alternative macroeconometric modelizations of the labor market, one relying on Ho the other on H_1. This can be done either for the labor market in isolation or within a full model of the economy. Particularly significant in this kind of test is the relative variability of the wage rate with respect to that of employment, a variability that has often been found in fact too small in comparison to what H_0 would imply. But the result of the test is sensitive to the accuracy of a number of econometric estimates, particularly those concerning the elasticities with respect to wages of the supply of labor and demand for it.

Third one may test whether the behavior of individuals reveals the perception of a varying constraint on their supply of labor. This, however, requires a full specification of the supply of labor and a careful econometric treatment for testing the effect of an indicator of labor market tightness. In particular one may wonder whether all determinants of the labor supply have been taken into account.

Fourth one may analyze what employers and workers report about their labor market experience. Do these reports simultaneously evolve in such a way as to support the idea of large changes in excess supply or demand? Reference to this kind of proof is unfamiliar in academic econometrics and even macroeconomics; admittedly it has its problems also; but we must be aware of its role in public opinion and study much more carefully its potentialities for scientific research.

While closing this section, I may say that my own assessment is definitely more favorable to H_1 than to H_0. Although the conclusion of each test, belonging to one or the other of the four categories I have considered, may be challenged, their joint result looks to me definitely convincing.

5. An example: assessing the Schumpeterian impact of European unification

Clearly limitations of our knowledge have pervading implications throughout economics, in particular for policy analysis. In order to look at the questions discussed in this lecture from a different angle, it may be interesting to consider one issue that arises in the study of the impact of 1992.

When trying to quantify the impact of the Single European Act, one could rely on a method for the various static, once and for all, efficiency gains to be expected from trade liberalization. Notwithstanding some difficulties in evaluation, it appears that these static gains will remain modest (see EC Commission, 1988). Enthusiasm in the business community is certainly based on more than that; it is based on the feeling that 1992 will promote growth. One, if not the major, reason for believing in such an effect is the boost given to entrepreneurship. This may be called the Schumpeterian impact, since it was Schumpeter who laid so much stress on the role of the entrepreneur. We scientists must recognize our difficulty in grasping this impact, let alone in quantifying it.

H. Girsch (1987) defined Schumpeterian economics as the "particular blend of theoretical and institutional, historical and sociological reasoning which Schumpeter combined in judgements of real world issues". Unfortunately in order to make this blend convincing one has to restrict its freedom of assertion, hence necessarily also to restrict its scope. It seems then that, when turning our attention to the role of entrepreneurs, we are led to consider three conditions required for this role to be effective in promoting growth: a population of potential entrepreneurs, attractive prospects and a favorable economic environment.

The process initiated by the Single European Act has no effect on population, except perhaps in the long run; but we believe it will contribute significantly because of the two other conditions. A larger and more integrated market will offer more opportunities in many respects, particularly as regards taking advantage of economies of scale, which are important in modern activities at least insofar as research and development are concerned; the anticipation of this increase in opportunities makes present economic prospects more optimistic. Simultaneously, as trade and other economic activities are liberalized, more scope is given to business incentives; the trend in the general level of profitability is indeterminate because competition is made more severe, but greater disparities favor those that innovate in the right directions.

Such an analysis makes good sense. But it is still impressionistic and conjectural. A program aimed at making it more solid should contain both basic research, not so easy to delineate, and the gathering of information on business perception of the role of the 1992 prospect for changes in anticipations and opportunities. (A special survey of this type was actually made in 1989 in the European industrial firms; see Study no. 5 in *European Economy*, no. 42, November 1989.)

This example shows that important policy issues exist about which the profession of economist scientists feels uncomfortable but cannot remain silent. The questions are relevant and will be answered one way or another by politicians. There is more expertise on the consequences of choices in economics than anywhere else, hence the silence of economists means decisions would be taken with a poorer information than is really available. Since it is thus confronted with the challenge of having to speak on issues about which conclusions are still scientifically weak, the profession of economists must be guided by ethical norms concerning its behavior. This conclusion has an obvious connection with the comment made at the end of the first lecture.

III. The European economic system

Twenty years ago it was easy to say that Western European countries had chosen to be mixed market economies and that their economic systems were serving some broad common objectives. Significant national differences existed, giving rise to debates as to what the best organization or institution was to be imitated elsewhere for such and such an economic or social function. But the importance of these differences seemed to follow a decreasing trend.

The convergence of economic systems within Western Europe, and even now more generally within the whole of Europe, is still progressing; but the common target towards which these systems are directed does not seem to be the same one as in those days; it definitely looks closer to a pure capitalist system. Moreover, while ideological oppositions have lost most of their strength, one may wonder whether fundamental disagreements do not remain as to what the European system ought to achieve, and consequently as to what it ought to be.

This lecture aims at making the options explicit, at presenting some factual elements that ought to be taken into account, at tentatively proposing some partial answers, and at suggesting some lines of research. To this end, I think it necessary to begin by looking backward to the evolution of the European economic system from the post-war period to the present day, though making comments along the way as to the implications for the future (section 1), then looking forward to the challenges involved in preparation for the next century (section 2). We shall then be ready to discuss what kind of market economy Europe should have (section 3). Since this economy will in any case be less regulated than that of the last few decades and will operate in a somewhat different international environment, one might wonder what role macroeconomic policies might play. I shall say a few words about this in a short final section. During this and the next lecture I shall of course at times express personal views. I hope I shall do so with moderation and make it clear when these views are not widely shared in the profession.

1. Overview of past evolution

It is convenient to distinguish two periods since the last world war. The first, which lasted roughly thirty years, was a time of confidence in a European kind of mixed economy that gave the main role to markets in the allocation of resources though with some coordination and stabilization by governments, an economy moreover that covered people against major risks, avoided extreme inequalities and insured everybody a minimum standard of living. While the actual role of government was not the same everywhere and also changed through time, the progress of the welfare state was manifest throughout this period. But the last fifteen years, marked by the loss of European competitiveness which occurred in the late '70s, have seen a different evolution with a retreat of government from new grounds left to market forces and with a reversal of the trend in inequalities.

It seems to me that for the purpose of this lecture two questions should be addressed. What are the reasons for the decrease in the role of government? To what extent was the loss of European competitiveness due to the economic system we had when it occurred? In identifying responsibilities answers to these questions will contribute to our understanding of the problems we are now facing. Let us consider them in turn.

The role of government, as seen in the mid-1960s, was not only to act by clever demand management so as to stabilize short term evolution; it was also to care about longer term economic objectives. The reasons for the decrease in confidence given to stabilization by demand management are more easily identified than those concerning medium term economic policies. I shall indeed talk mainly of the first ones.

(a) As we have already seen in the first lecture, the evolution of our ideas about macroeconomic phenomena made us less confident in demand management, because at times supply conditions matter more than the level of demand and because the medium-term trade-off between inflation and unemployment is less favorable to expansionary policies than was earlier thought. One may now add that since 1990 budget deficits, often associated with such policies, have also become a constraint because the level of real interest rates makes large deficits impossible to sustain for too long. While it is hard to believe that real interest rates will not decrease somewhat, one should not expect them to be again at the low levels they reached in most European countries during the '60s and '70s. Hence, consideration of public debts will remain as a second reason, together with concern about price expectations and inflation for maintaining a cautious attitude with respect to active expansionary policies.

If decisions shift from the national to the European level, a third reason explaining why the attitude has become less favorable to demand stimulation will on the contrary be removed. Indeed, national policies have become less and less effective as economies become more open to international trade. But the Common Market as a whole is much more similar to a closed economy in its macroeconomic behavior than any single European country may be. This was convincingly argued in J. Dräze et al. (1987) who pointed in particular to the rather small import share in GDP for the Community of 10 members taken as a whole (13.4 per cent, as against 25-30 per cent for large individual countries).

Moreover, it was found that demand management was not so easy to monitor. In England in particular it led to alternating decisions of stop and go in a way that failed to stabilize the economy. In France in 1975 and again in 1982 strong expansionary policies were disappointing because they induced larger foreign deficits than were expected (for reasons perhaps as yet imperfectly known), and a sharp turn to restrictive policies was taken about a year later in both cases.

The case of West Germany deserves particular attention here since it is different from those of the United Kingdom and the United States with which many writers are much better acquainted. Throughout the period 1982-86 when a large slack in business conditions prevailed, German authorities stubbornly resisted the very frequent request from abroad and from trade-unions to inflate their aggregate demand. They could not claim balance of payments difficulties since their current account had a surplus, even an increasing one (0.5 per cent of GDP in 1982, 4.4 per cent in 1986, 5.3 per cent in 1989). They argued to be obliged to restore their public finances; but the argument in itself was hardly convincing since the public debt remained moderate (39 per cent of GDP in 1982, 43 per cent in 1986, now declining).

Part of the real explanation is the heavy weight given to price stability in the German objective function. Already in the '60s, while Keynesian economics was the most widely accepted wisdom in the country as elsewhere, real interest rates remained at a safe level of roughly 3 per cent, definitely above what could be seen abroad. But a significant part of the explanation is also the perception by almost all German economists and politicians of supply weaknesses that would be more easily cured in difficult business conditions than otherwise. It was in Germany that real wages first appeared too high (already in the early '70s) and it was in Germany that the notion of Eurosclerosis was invented. This perception was, I believe, reinforced by a reaction to what seems to me to have been a collective irrationality in 1980. Answering with some reluctance to international solicitations, the German government in 1978 had accepted to play the role of the locomotive and to have an expansionary policy. With hindsight, the move does not appear to have been so bad for Germany since the unemployment rate for instance decreased from 4.0 per cent in 1977 to 3.3 in 1980 (as against an increase in France from 5.1 to 6.4 per cent for the same years). But the ensuing deficit of the current account (which bottomed at -1.7 per cent of GDP in 1980) was considered both as totally intolerable and as a new sign of the loss of German competitiveness that had already been talked about. The conclusion commonly drawn in the country was that the same policy should not be tried again. Some serious economists even put forward the paradoxical, and hardly credible, thesis according to which fiscal contradiction was the right thing to do in order to stimulate overall demand (M. Hellwig and M. Neumann, 1987). This story well shows, I believe, how the loss of confidence in active macroeconomic policy was due to a combination of changes occurring in both the assessment by experts and public opinion; these same changes occurred in other countries as well.

(b) This loss of confidence was not limited to short term stabilization; it extended to medium term policies and most kinds of government intervention in the economy. My past connections with French planning make it my duty to consider here this longer time perspective also. The case of French planning is, of course, special, particularly because at one time it was overpraised, which led to disillusion, and hence underrating. One should note nevertheless the more widely significant fact that the formal apparatus so active twenty five years ago in discussing French medium-term policies has been made much lighter and now attracts only very little interest.

The explanation is probably almost the same as for stabilization policies: economies that are more open cannot easily be controlled. Since it now appears that no simple recipe exists for solving medium term problems, in particular lasting unemployment, public opinion and many politicians tend to think there is nothing significant to do about them. This assertion, which I presented more fully in E. Malinvaud (1984), is less cynical than the one made by R. Solow (1987) who said that the conservative governments, which now rule in most countries, "do not really care much about macroeconomic performance", although I agree with him in thinking today that the electorate itself cares less about macro- performance than we earlier believed.

To tell the truth, I see here with nostalgia the present neglect of medium term planning. I am sure that there remains a need for what this planning was claimed to do in market economies: the elaboration and diffusion of sound ideas on medium-term economic trends and on their implications, the discussion of programmes for public services and the explicit choice of policies in such matters as education, social security, environment, energy, agriculture and the like, even including the disreputable industrial and trade policies whose existence is a fact of life and may in some cases be justified. I believe that on the whole French planning played a useful role in past decades because it made decisions more lucid, although far from as lucid as I would have wished.

In a fuller account of the changes witnessed during the past two decades, one should also consider the deregulation and privatization movement. Many people were once led to realize that public interventions intended to correct "market failures" were exposed to "government failures" of various kinds; with the swing of ideas these latter failures often appeared to outweigh the former ones.

(c) In comparison with the rest of the industrialized world, the European Community experienced a sharper reduction in output growth and a large increase in unemployment during the '70s and early '80s. This was symptomatic of an underlying competitiveness problem. In several countries policy-makers were unable to stimulate aggregate demand without causing an unacceptable deterioration in the current account. Moreover we know that this was not due to a real appreciation of European currencies: there were large fluctuations, but no significant trend in the real exchange rates.

It has been argued that the loss of competitiveness by Europe was due to the evolution of its economic system. The development of the welfare state and the increase in regulations had led to a rigidification and to a significant weakening of economic incentives; this was Eurosclerosis. *A contrario* deregulation and removal of at least some of the institutions of the welfare state was said to be necessary for a recovery of European growth.

The argument needs to be looked at closely and in detail. I hope that research will be done on it in the years to come, so as to detect what the effects induced by each regulation and each aspect of the welfare state have been and how important these effects may have been. I cannot prejudge what the precise result of this research will be and I know that it is not going to be easy. But what is now available tends to suggest that responsibility for each effect will be found to have been very small, because the relevant elasticities are small (e.g. elasticity of the demand for labor with respect to the ratio between the minimum and the average wage) and because the evolution of the economic system has been slow (e.g. the change of the ratio has been small).

Moreover, there is an alternative explanation for the loss of European competitiveness that I intuitively believe to have played a larger role and that has only weak implications on what the European economic system ought to be in the future. The explanation may be given as follows.

A long period of rapid European growth from the end of the war to 1973 raised expectations about what was feasible. Progressively most people came to expect that each year a significant new increase in their purchasing power would occur. These expectations raised aspirations and strongly conditioned wage setting. European workers and businessmen then did not realize that several factors made it unlikely that the rate of growth of real incomes in the '60s could long be maintained: it was partly due to a catch-up with respect to the fundamental European potential after the slow-down of the '30s and '40s but this catch-up was coming to an end; stability in the world economy could not be taken for granted and instability would imply slower growth; neither could the then favorable evolution of the terms of trade be taken for granted; Japan and the newly industrialized countries had been buyers of European equipment goods, but they were progressively becoming important competitors and the new international division of labor that was going to emerge would require important restructuring of our industries and less favorable export prices. All these risks, which could have been anticipated but were not, materialized in the '70s and early '80s. But expectations and aspirations were very slow in adapting to the new situation. At the same time a social malaise that had developed during the years of affluence de facto weakened the bargaining position of employers. For these various reasons real wages went on increasing and profitability deteriorated so much that businessmen had neither the incentive nor the possibility to keep pace with international competition.

Clearly this explanation gives responsibility to an extraordinary historical conjunction, within which the rigidities of the economic system only play an ancillary role.

2. Challenges of the future

Looking ahead now, what are the main challenges the European economy will have to face in the years and decades to come? Leaving aside for the moment the specific challenge of European unification which I shall consider in the fourth lecture, I may list: how to insure the revival of European competitiveness; how to help Eastern European economies to recover; how to reach a proper fit between the European social philosophy and the requirements of market efficiency; and how to solve the problems resulting from the change in the European demographic structure. I could add other items to this list, for instance environmental problems as a fifth challenge; but considering them would not lead me to revise significantly the implications I shall draw as regards the European economic system.

We need not fully study the answers to be given to the four above challenges, which would in any case require far more space than is available. It will be sufficient primarily to get an idea of what the gist of the answer ought to be in each case and therefore to grasp the implications for the choice of the appropriate European economic system. Neither will it be necessary to consider a wide range of possibilities for this system. We know already that the main role will be given to markets for the allocation of resources; the crux of the matter is to know the exact extent of this role and how it ought to be complemented, if at all.

(a) One cannot doubt that today the assessment of current European competitiveness is much more favorable than it was five years ago. The decline in European market shares seems to have stopped. Our current balance remains in equilibrium, notwithstanding the fact that demand is now increasing faster in Europe than elsewhere. (Of course the imbalance within the Community is a problem, but one that does not concern us at this point.) Productive investments are booming and capacities are expanding, particularly in the most promising industries, in which they had been previously lagging in comparison with what was happening elsewhere in the world. One may well speak then, as some commentators do, of a revival of our competitiveness.If so, no particular change of our system would be required on this score.

Caution is, however, wise. First, the good news is still recent and based on statistics that are not complete since some of them, like volume market shares, are gathered with a long lag; perhaps we are overoptimistic today as to the present stand. Second, convalescence may be exposed to renewed attack if the evolution of the world economy turns out to be unfavorable to our region; the recent sharp decrease in the exchange rate of the yen may be a case in point since, if it is maintained, it will again give an advantage to Japanese competition. Third, within the world context the process of European unification may very well result in a situation by which Europe will be more open to foreign competition than any other major region, which means that here specialization will have to be that much sharper and profit margins in growing activities to be that much more attractive.

These considerations point to the existence of a trade-off between the degree of openness of the European economy, which may of course be stimulating for business and therefore favorable to growth, and the fulfilment of social objectives, which may recommend moderation in the speed of industrial restructuring as well as in the acceptance of large profit margins where competition permits.

(b) Western Europe now feels that it has a responsibility for helping to raise standards of living in Eastern Europe. What will happen there is of course still largely indeterminate. But in order to understand the nature of the challenge for us, we may focus attention on two scenarios relating to what the situation may be in the year 2000, assuming in both cases a high degree of integration between the two parts of Europe.

According to scenario 1 we would witness a rapid reconstruction of competitive economies in Eastern Europe, a reconstruction similar to the one that occurred in Western Europe after the war. The reconstruction now concerns economies that are less wrecked but have lived longer with a low productivity. The differences probably matter less than two other factors: the existence of a human potential whose motivation and qualification should be good, and the great geographical and cultural proximity with the prosperous sister economy. One can well imagine that growth in this scenario of "competitive reconstruction" will be even faster than it was in Western Europe forty years ago. But I believe there is one condition, namely that the economy in question be indeed competitive, which means in particular that it will be able to face competition from elsewhere, hence that its (temporary) backwardness will be outweighed by lower costs in international money.

According to scenario 2 a part of Eastern Europe would be assisted by Western Europe, in the same way that southern Italy is, or the French Départements d'Outremer are. The rest of Eastern Europe would remain outside this integrated area; its exact state does not need to be made precise in this discussion. Needless to say, the real levels of consumption in the year 2000 would be lower in this scenario than in the previous one, within the assisted part of Eastern Europe.

I believe that the scenario of competitive reconstruction is now the most likely one. But the risk of falling into scenario 2 does not appear negligible, when we think for instance about possible sequences of events shaping German unification. It is up to economists to make this risk perfectly explicit and to bring it to the attention of as large a number of people as possible. We must realize that for politicians the easiest decisions may be precisely those leading to the scenario of assistance.

One implication of scenario 1 is that the faster reconstruction is in Eastern Europe, the faster restructuring will have to be in Western Europe. In our region high technology industries will benefit from a larger and quickly increasing demand, but traditional industries will be exposed to more and more competition. This again raises the question of the appropriate degree of openness of the European Community.

(c) There is an obvious clash between the institution of a full modern capitalist system and the central social philosophy to which Europe has adhered during this century, a philosophy stressing that the economy is for the service of people, accepting the notion of a social welfare that values equality of conditions as well as protection against risks, and giving to the State the function of guaranteeing this social welfare. While deregulation and privatization have progressed, while the notion that enterprise is valuable has been restored with all its implications, there is also evidence that people are still attached to the same social philosophy and to most of the institutions created under its inspiration. One may confidently forecast that this clash will create problems. Let us look at it a little more closely.

Clearly, the increase in inequalities has been accepted thus far. It has been accepted because it has been understood to be unavoidable in a difficult period. Mass unemployment generates inequalities. But in order to reduce unemployment one has had to accept the restoration of profits and of all the financial incentives that stimulate growth; these are quite unevenly distributed. Moreover the high level of real interest rates was a world phenomenon that nobody could avoid.

One may wonder whether present attitudes do not also reveal something that will be more permanent. The institutions of the welfare state have done a lot towards equalizing conditions and reducing poverty. Many people now seem to think that this had a cost in terms of growth and was nevertheless less effective in reducing true inequalities than we expected. In other words, the trade-off between growth and equality is now believed to be more severe than many thought before. It is natural then that the median voter has revised his views on what ought to be done and now selects a policy mix less conducive to redistribution.

But this qualification concerning some consequences commonly drawn from European social philosophy should not lead us to minimize the risk of political clash if present trends are maintained. For instance taxation of capital incomes and capital gains is now substantially reduced. One understands why. The liberalization of capital movements forbids significant differences in taxation across countries, unless the owner's country of residence is the reference and tax authorities have the relevant information; but this last condition is not easily met; harmonization is politically all the more smooth as it is done at the lowest of existing taxation levels; and that there are tax havens. Notwithstanding these good reasons, I do think that there is a serious problem here that economists in Europe should face, so as to inform public opinion on what a satisfactory solution could be.

The future of the social security system is another problem, because we realize now that, as they have been patterned, these systems are not financially sustainable in the long run unless rates of contribution continue increasing. But people want both present benefits to be maintained and rates of contribution to stop increasing. Similarly, the various protections that labor laws and regulations now grant to workers will not be easily reduced, even if they are said to cause rigidities.

(d) European demographic trends are potentially the source of two main challenges, one related to the geopolitical problem of a stable and even declining population with more and more populous and less rich neighbours, and the other to the implications of having an ageing population. Economists have little to contribute to geopolitics; so I shall consider here only the second challenge.

Like many demographic trends, the ageing of the European population is going to be a slow but persistent problem. For instance in EC-12 the ratio of the number of people aged 65 or more over that of people aged from 15 to 64 went up from 14 per cent in 1950 to 21 per cent in 1990 and is forecast to be 35 per cent in 2030 (OECD demographic projections – medium fertility hypothesis). This phenomenon seems to have two main implications. On the one hand one fears that the workforce will progressively exhibit less dynamism, lose part of its entrepreneurial spirit and less willingly take risks; this may mean a competitive disadvantage, not so much with respect to the US and Japan that will experience a similar ageing, but with respect to younger competitors. On the other, unless retirement ages increase or the level of pensions relative to average income decreases again and again in the future, the working population will have to bear a higher cost for sustaining elderly people; it is already clear that some social security pension schemes will experience great financial difficulties.

3. What kind of a market system?

Europe wants to enjoy the benefits of a free market economy but does not want to forsake its social philosophy. I have already pointed to some consequences that this fact, as well as some other challenges, will have on the European economic system. Let me repeat and somewhat complement.

First, our fiscal system (including social security contributions of course) has to be reviewed. Its allocative and redistributive functions have to be reassessed, so that its logic is made clear. It seems to me that no satisfactory system will be found without some substantial taxation of capital.

Second, what has already been done in reviewing our social security systems and their future problems shows that the natural tendency of some benefits to continue increasing will have to be contained. The solution needs not be the same in all countries of the Community; but two of its features will probably have to apply everywhere. The mandatory part of risk-sharing will contract somewhat, so that the role of private insurance increases. Some of the rules for entitlement to public benefits will be made more severe; in particular the retirement age opening a right to a public pension will have to increase again (although more careful in its statement, the official document OECD (1988) comes close to these conclusions). European unification moreover requires that labor mobility is not hindered by the fact that moving would imply losses in accumulated social security rights; particular attention ought to concern unemployment insurance and pensions, which should be made fully portable from one country to another (on this see J.-P. Danthine et al., 1990).

Let us now look at the various kinds of markets. Although goods markets will be free, still more than they are today, some role will remain for public intervention, and not only because of the provision of collective goods and the control of externalities, particularly concerning the environment. I have already mentioned trade policies *vis-à-vis* the outside world. Their main objective will be free trade, and hopefully the full opening of borders to goods produced in underdeveloped countries; but the requirement of a real reciprocity with developed countries is likely to justify the persistence of some restrictions since the Community will in any case have serious adaptation problems. For helping in the solution of these problems, public aids to restructuring and even public assistance may have to be quite significant.

Internal and external market competitiveness of the economy will raise dilemmas. On the one hand efficient production often requires large size, so that in some activities the concentration of European firms has still to progress. On the other hand, efficiency also requires that no firm or group of colluding firms can behave like a monopolist. Clearly, in order to best face this dilemma public authorities will have both to follow legal rules and to study all the features of each particular case. This means that industrial structures will be somewhat different from those that would be implied by a laissez-faire policy.

Public support for research and developement will remain important. It cannot be truly indiscriminate and is necessarily inspired by some notions on what the promising lines of technological innovation may be. Similar notions are necessary for a proper conception of the aids to restructuring operations. Hence I believe it would be proper if the Community's industrial policy, so understood, could be elaborated not only by the administration of the Commission and by the political authorities but also within an institution that would be somewhat more independent, less pressed by current decision taking and wide open to discussion with all experts and all partners. You understand that I am referring here to something similar to what French planning once was and to the conception we owe to Jean Monnet.

It is difficult to describe in a few words what an actual labor market can be, since the textbook notion of an ideal market is in this case a particularly severe approximation. But clearly, future European labor markets will not be much different from what they are now. Progressively, however, they will become more similar across countries, since the aim is that labor movements react to economic incentives, and only to those: labor laws and regulations will then have to be made more homogeneous. Should we recommend that this evolution be made at the highest speed that is socially acceptable?

Let us note first that perfect integration of labor markets does not mean that workers' mobility would necessarily be high, since linguistic and cultural barriers will remain over and above impediments that are already effective within each country, such as the imperfections of the housing market. Let us note also that, according to the theory of the allocation of resources, when goods and capital freely move there may not be much to gain from labor mobility, except for highly qualified or narrowly specialized labor that is not everywhere to be found. But this conclusion assumes "perfect" labor market and neglects the type of macroeconomic consequences that actual labor market functioning entails.

The modern theory of corporatism, as discussed for instance by L. Calmfors and J. Driffill (1988), shows how these consequences may depend on the structure of labor markets. In particular the two authors study the level at which wage bargaining occurs: from the most centralized case of a unique grand bargaining to the most decentralized one operating within narrowly defined industries or even within firms. They show that either of the two extremes leads to better macroeconomic results than the intermediate case of incompletely centralized bargaining between fairly large unions and representatives of employers of large industries: in the decentralized case unions and industries have too little monopoly power to deviate much from competitive behavior; in the fully centralized case bargaining efficiently internalizes all the macroeconomic consequences of the decisions. Taking this modelization as a reference. J.-P. Danthine et al. (1990) have argued that at least for many years to come European unification will make the fully centralized case unfeasible; for the intermediate cases, moreover, integration of goods and capital markets will quite significantly reduce the macroeconomic losses, already without any mobility of labor.

This analysis is of course special. Qualitatively different conclusions will perhaps be found if other factors are seriously studied. In particular the transmission of skills that follows from mobility may lead to significant productivity gains. All in all, however, it seems that forcing social resistance to harmonization of labor laws and regulations so as to quickly reach a full integration of markets for all kinds of labor may not be wise. Evolution of national systems is advisable on its own, in order to restore some flexibility where markets have been made excessively rigid. This should be done in such a way as to contribute to convergence. But again I explained at the end of section 1 that in my view the role of rigidities in our past difficulties was sometimes overstressed and in section 2 that labor legislation was one of the main potential focuses for the clash between the restoration of a purer capitalism and the persistence of the European social philosophy.

Free movements of capital within the Community was decided and is already close to fully hold. We may assume that it will remain a permanent feature of the European capital market, although the possibility of crises imposing temporary controls ought perhaps not to be excluded. In practice full capital mobility within the EEC boundaries is also very likely to forbid restrictions of capital movements with the rest of the world, since the capital markets of the major countries are already quite integrated with one another. Imposing new controls would disrupt many regular contractual relations and is probably not even feasible because some of our countries would refuse it. Perhaps, however, if the world financial system experiences phases of great turbulence, it will be found appropriate to impose transaction costs through the boundaries of the main financial areas in order to dampen hot money flows.

Although very free, these capital markets will not escape some forms of government intervention. I mentioned the taxation of capital incomes and gains as one such form. A monetary authority will also obviously remain necessary, not only for macroeconomic stabilization but also as a "lender of last resort" so as to insure a sufficient solvency of the credit system. Prudential regulations will contribute to the same objective, while other regulations will aim at an equitable functioning of financial markets.

A particularly delicate issue concerns the purpose of the regulation of takeovers and other forms of corporate restructuring through capital markets. There are two opposite conceptions in this respect, naturally with possibilities of compromises in between. Some people focus their attention on the interest of shareholders, viewed as investors in securities. They want markets in which small investors have equal access to information with dominant shareholders, are protected from exploitation and may benefit by all kinds of profitable offers that takeover bids may induce. The regulation of securities markets and takeovers in the US and the UK corresponds to this first conception. Other people see large corporations as productive associations built through time by their workers, managers, lenders and shareholders, associations that even have a kind of vocation for particular activities. For these people the transfer of control has to take account of the explicit or implicit rights of workers, managers and supporting banks; so the enterprise itself has to be protected against predatory attacks. This conception agrees with the methods of corporate restructuring traditionally applied in Germany or Japan.

Although present trends are inspired mainly by the first conception, it is far from obvious that it is welcome. J. Franks and C. Mayer (1990) well show that two conflicting considerations arise when we compare the efficiency achieved by the corporate sector. On the one hand high exposure to takeovers is often said to impose high managerial performance. On the other hand the efficiency of a large corporation depends on the confidence with which each of its agents (workers, managers, lenders, shareholders, even customers) perceives the involvement of the others in a durable common activity ruled by more or less implicit contracts. This confidence is jeopardized if the risk of a disrupting takeover can materialize at any time. Neither logic nor experience shows the second consideration to be less important than the first one. Thinking about the deficiencies of stock markets in evaluating the long term profitability of firms, I tend to believe that the second consideration should be predominant as the Community is going to decide on its regulation of corporate restructurings.

One conclusion seems to emerge at the end of this survey. Looking at the main aspects of the future European economic system, we have seen that the strategic choice in favor of a reliance on market incentives, a choice certainly not to be regretted, cannot neglect a number of side conditions whose fulfilment will depend in part on the existence of proper institutional rules and of wise government.

4. The role of macroeconomic policies

I may be very brief on what macroeconomic policies will still have to do in the European economic system. Indeed, we have the example of the US with its large internal market and a system that has a good degree of similarity with the one toward which the Community is heading. With this example in front of us we know that the need for macroeconomic stabilization will remain. We also know that the Community, although open, will be sufficiently self-supporting for independent macroeconomic policies to have more domestic impact than is the case now for each one of our countries. (In 1985 the import share in GDP was 13.4 per cent for the aggregated Community of ten members, as against 10.1 per cent for the US, figures given by J. Dräze et al., 1987.) At this point I would simply add two comments to what I said in the first lecture and at the beginning of this one, to what I shall say in the next lecture and to what anyone can otherwise infer from the American case.

Firstly the liberalization of capital movements in Europe applies with respect to other parts of the world also, thus contributing to the trend toward full financial integration of the developed countries. There is a risk that the world capital markets so created experience important crises in the future.

Economic history provides us with quite a few instances of financial crises that had major impacts on the real economy. These crises became particularly severe when they generated a chain reaction which destroyed the solvency of many financial institutions and even non-financial corporations. Control on the banking system and on the markets by active central banks reduced the frequency of such crises and alleviated their consequences, particularly so after the diffusion of Keynesian theories and their successors which gave problematic guides to central bankers.

It would be an exaggeration to say that today the world capital markets are not controlled at all because there is no world central bank. Indeed, national central banks do not consider their responsibility as being limited to their domestic markets and intervene when the international situation requires it, often acting simultaneously in a coordinated way. Major financial crises were thus avoided, first when it suddenly appeared in 1982 that Latin America had huge debt problems, second at the time of the 1987 stock exchange crash. But nobody can say whether such counteraction will always be feasible since a financial crisis can have many origins, since it can involve sudden capital movements of a very large size, while most actions of central banks have to be indirect, and since the development of elaborate financial superstructures and imaginative operations increases the risk of systemic breakdowns. If such a crisis unfortunately occurs, one knows that it will be particularly hard on those that are highly indebted, as well as on those whose solvency depends on the solvency of the former.

Because of this risk I do believe that macroeconomic policies, as well as microeconomic banking regulations, should maintain a permanent concern about the indebtedness of the main categories of agents. This being said, I must recognize that for the purpose we do not seem to have the theoretical framework, which would guide us, and the methodology, which we would routinely apply. Trying to build the framework and the methodology looks to me to be an important objective for macroeconomic research nowadays. I hope it will attract interest. I note that such research would need to deal with a broad range of issues, so that it would encompass in particular the effect of public debts on appropriate government policy, an effect that is now worth studying for reasons I mentioned at the beginning. Secondly, we must keep in mind that modern market economies, even when well managed by wise monetary and fiscal policies, have a spontaneous tendency to drift toward inflation, first slowly then at an accelerating pace unless unemployment is substantial, more substantial than is admissible. This outcome results from price and wage formation, and more precisely from the way it normally operates in our times. In order to cope with the difficulty, the government then has to interfere, i.e. to have a prices and incomes policy.

In the past this kind of policy often turned out to be deceptive. Sometimes government action simply did not succeed in having any impact on the formation of wages and prices. In other cases the impact was purely temporary, for instance when, shortly after the end of a price and/or wage freeze, the price level was back on its former trend. When government action had a durable effect it was usually smaller than had been intended. Unpleasant as it is, this experience nevertheless shows that price and income policies can be effective, in particular when wage bargaining is centralized, or else when there is a good public consensus on economic issues and when the current situation of the country is understood to recommend moderation of nominal claims.

Heterogeneity of the Community will, for many years to come, be a handicap for the success of any kind of deliberate common price and income policy. On the other hand it is difficult to imagine that price and wage formation will everywhere and always conform with what is done in the least inflation-prone countries. The discipline that seems to be imposed at present within EMS is unlikely to persist for ever; indeed it is still imperfect now. Prices and incomes policies at the national level may then prove to be insufficient.

I must therefore draw the uncomfortable conclusion that macroeconomists have no recommendation to make to politicians on this delicate issue, except to tell them they should not expect to achieve much by actions intended to curb directly the spontaneous formation of wages and prices. To make matters worse, I do not see how macroeconomic research might usefully approach the issue. Let us hope that others will be more helpful, perhaps sociologists or economists knowledgeable in labor relations.

IV. The economic challenge of European unification

European unity appears more and more as a widely shared objective for the people of our countries. The march toward it has had to go through many stages since the Treaty of Rome; its end is still a good distance ahead, although it now progresses at an accelerated pace. Completing this march in good order is certainly a challenge. In this lecture I shall attempt to consider the economic obstacles along the way and discuss how we might best surmount them, or at least try to present the issues that ought to be resolved.

My first group of comments will aim to assess where we are in the present phase of transition and to look ahead to the difficulties of the next achievements (section 1). The second group will concern the question of knowing how homogeneous the common economy we want to build ought to be; an answer to this question should provide useful orientation for the policy choices we now have to make (section 2). The rest of the lecture will be more specifically macroeconomic and devoted to the two main problems for which lucid and realistic macroeconomic strategies have to be chosen: how to manage the transition to full monetary union (section 3), and how to coordinate fiscal policies (section 4).

1. Some dynamic aspects of the transition

In order to grasp properly the problems marking the road to European economic unity, it may be necessary to reflect on the various aspects of the dynamic process during the transition. This process is guided by the political will to achieve unification and to overcome all kinds of difficulty. The objective is clear, but the best way to reach it is not, since we must go around obstacles that are too big to be directly surmounted. In fact many unknown variables exist when decisions are taken and reforms introduced; inevitably some of the initiatives will later on appear to have been more or less inappropriate, perhaps even to the extent that we have run down blind alleys. These uncertainties are explained well in chapter 5 of J. Palmer (1989), a chapter suggestively entitled "Will it Happen?"

One may then view the process as moving ahead in the midst of hundreds of obstacles, of various sizes, that slow it down, force it to deviate, even at places impose a retreat. But the strength of the process is also permanently regenerated by the sense of momentum and change that the Single European Act has successfully initiated; anticipations about the potential of the single market drive the energies and are fuelled by the evidence that many structural changes do occur.

In the macroeconomic field as in others it may be easier for a specialist to identify and study precisely the obstacles than to do the same for the driving force. We are certainly witnessing an investment boom which is no doubt partly due to the 1992 prospect; but, as I hinted at the end of the second lecture, we find it very difficult to closely analyze and forecast the "Schumpeterian impact" of this prospect.

This remark should be borne in mind as I now draw attention to some macroeconomic imbalances appearing along the way, the presupposition being that macroeconomic difficulties of the transition period should take the form of unsustainable evolutions.

I shall argue in a moment that full homogeneity in the Community will be neither feasible nor required. Hence, one ought not to expect nor even wish perfect similarity in macroeconomic evolutions. For the same reason the lack of convergence of some of these evolutions during the transition period does not necessarily reveal difficulties. It does, however, signal an issue requiring serious scrutiny, because it may also show that something wrong is developing, something that will grow worse through time. The Commission is well aware of it since one of its recent reports to the Council of Ministers has the title: "Economic convergence in the Community: an increased effort is necessary" (*European Economy*, No. 41, July 1989). With this in mind I shall now briefly recall the nature of the present trends, taking as a reference the beginning of 1987 as growth was resuming, inflation had come down to an annual rate below 5 per cent (EC-12) and the last realignment within EMS had taken place.

Since that time progress has been made toward a further convergence of inflation rates within EMS, but hardly within the whole Community. If we except Greece (15 per cent) and Portugal (12 per cent), the spread of annual inflation rates for 1990 is still expected to go from between 2 and 3 per cent in four countries to more than 6 per cent in three countries, two of which belonging to EMS. An annual spread of the order of 4 per cent would clearly be quickly unsustainable in a monetary union. I shall come back to this question seriously in section 3.

While for the Community as a whole the unemployment rate has decreased by almost 2 per cent during the last three years, there has also been some convergence because the decrease has been particularly fast in two countries that experienced high unemployment, Spain and the UK. The dispersion is still important however with three countries reporting rates below 6 per cent and two countries' rates about 16 per cent. Not surprisingly considering this slow convergence, one notes a negative correlation between rates of real growth and rates of unemployment. It thus appears that so far, at the country level, the process to 1992 operates better than expected by those who feared it would be more favorable to the already most prosperous regions; as far as I know, observation at lower regional levels does not lead to a different assessment.

As attention is drawn to regional disparities in unemployment and growth rates, it is proper to recall that at the time of the Treaty of Rome fears were also expressed that the Common Market would benefit the most industrialized regions of the Community at the expense of other regions. On the whole these fears have turned out to be misplaced. Unfortunately since that time the macroeconomics of comparative regional development has not become significantly more operational for policy makers. For reasons similar to those explaining our difficulties in measuring the Schumpeterian impact of 1992, we are unable today to detect where the main beneficiaries of the internal market will be. We are thus unable to identify the location of the most urgent needs for the Community structural funds which are aimed at reallocating resources to regions whose spontaneous development would lag behind. Considering these uncertainties a good case can also be made for the automatic redistribution that would result if a Community element was introduced into unemployment insurance. (After some earlier similar proposals C. Bean et al. (1990) argued for it).

If we turn our attention back again toward present trends, we find that two immediate and more troublesome problems will have to be taken into account here, in sections 3 and 4, namely the increasing imbalance in the external accounts of the various countries and the diverging evolution of public debts. The disturbing evolution of the current account balances appears clearly with the increasing sizes of surpluses and deficits. For instance between 1987 and 1989 the German surplus in percent of GDP increased from 3.9 to 5.3, the British deficit, again in percent of GDP, increased from 1.6 to 4.1 and the Spanish deficit from 0 to 2.9. While it is natural for some countries to finance the development of others, as for West Germany to finance Spanish expansion, the present evolution is obviously also due to some other factors, which may reveal difficulties for the transition period.

Divergence in the evolution of public debts is striking too. In five countries of the Community the ratio of the public debt to GDP follows a significantly increasing trend. These countries all belong to the group of six in which the ratio already exceeds 70 per cent, the exception being Ireland which has succeeded in obtaining a decrease in the very heavy burden of its debt. However, the divergent evolution of public debts has a fairly obvious explanation that has nothing to do with the process of economic unification. Since the sharp increase in real interest rates ten years ago, countries that were used for whatever reason to have an important public deficit have been trapped in a vicious circle in which the deficit generates an increase of the debt, hence an increase in its interest cost, which makes the deficit worse and so on. A drastic budgetary austerity is then required in order to break the circle. We must therefore conclude that the public debt problem of some EEC countries is not an outcome of the unification process, but is a significant constraint imposed on this process; this constraint will play an important role in what I have to say in section 4.

2. How homogeneous ought the Community to be?

In order to manage the transition well one clearly needs some idea about the degree of homogeneity required within the Community at some useful future horizon. This consideration applies in many fields. I already introduced it when speaking about the organization of labor markets, concluding then that trying quickly to achieve homogeneity in labor laws and regulations would probably be unwise. Let us look at it now in broader terms, but from the particular viewpoint of macroeconomic policies.

I suggest that two facts ought to be taken for granted. Firstly labor mobility from one country to another will be hampered by linguistic and cultural differences; it will remain low unless there are strong economic incentives, which seems unlikely considering the degree of equalization already achieved in levels of living. Secondly national specificities in the evolution of macroeconomic conditions will remain frequent. This is not only because the same exogenous changes will have somewhat different impacts, in the same way that oil shocks did not affect the terms of trade of the various European countries to the same extent. It is more because, for a long time to come, the nation will remain the main point of reference for political and social life. Elections will not be synchronized; changes of government will at times go in opposite directions; great strikes will be national; even movements of public opinion imposing a policy change will often be peculiar to one country. All these factors will induce differences in the behavior and reactions of the authorities, as well as different changes in laws and regulations.

This prospect should not dishearten the efforts now made toward harmonization and policy coordination. Many of our present institutional disparities are the result of historical accident rather than logical necessity; we must fight for the elimination of those that most damage the process of European unification. But selectivity itself will increase the chances of overcoming either pure administrative resistance, which is frequent, or the interests of pressure groups that have not to be protected, or even sometimes the difficulties coming from legitimate claims that must somehow be taken into account. In order to guide this selectivity we must determine where the most urgent needs are.

Economic principles prompt us to say that a public intervention, being justified by some market failure, should be managed at the lowest level permitting correction of the failure, because at this level information is more complete than at higher levels and local specificities can be better taken into account. On the basis of this principle it has been argued that harmonization and policy coordination are not required at the Community level, except when its necessity for the correction of a market failure has been proved. But the argument, certainly valid in some particular fields, often looks unrealistic and useless when it is presented as a general guide.

Consider for instance what is happening for the harmonization of technical norms on industrial products. It seems to be agreed that the existence of national differences has no positive justification and is an important trade barrier. But removing these differences, while each country's interest is to see its norms adopted elsewhere, appeared so laborious and painful that the Commission first proposed a general principle of mutual recognition (if at the end of 1992 no harmonization has yet been reached for a particular kind of product, then a product satisfying the norms of a country would have to be automatically recognized as satisfying the norms of any other country). It was realized subsequently that, if this was admitted, countries with the most tolerant norms would have a strong incentive to block any attempt at harmonization. This is why the text of the Single Act now stipulates that the Council of Ministers will be entitled to decide after 1992 that mutual recognition will apply for particular kinds of products. How this part of the text will be applied remains to be seen (see J. De Ruyt, 1989). In this case it seems that the most urgent need for harmonization is in products whose trade is effectively most restricted as a consequence of technical norms; these products are also likely to be the ones for which the conflict of interests in harmonization negotiations will be the most acute, hence also perhaps the most effective in preventing agreement.

In the macroeconomic field, projects of a monetary union have for twenty years been the occasion for a standing political debate concerning priorities. The debate opposed "monetarists", pleading for a fast monetary unification, and "economists", arguing that this was bound to fail without prior efforts to promote convergence of national economies, or even without a significant transfer of other functions and powers to Community level, as well as a substantial transfer of resources (see P. Ludlow, 1982). The decisions taken after the Delors report seem to have accepted the move long proposed by the so-called monetarists. Perhaps because the terms of the political debate were not precise enough macroeconomic research as far as I know does not seem to have much addressed the issue while it was pending,. We shall see in a moment how the more specific questions now posed by monetary unification can be more precisely approached and are indeed approached.

Turning my attention now to the degree of homogeneity that ought to be aimed at in public budgets, I can appeal to the authority of Sir Roy Jenkins who gave the first Jean Monnet lecture at the Institute in October 1977 while he was President of the Commission. He explained in particular that the monetary union, for which he was then pleading, would leave the public procurement of goods and services "primarily in national, regional and other hands". Indeed, from the Community point of view most public goods can be said to be "local". We may think for instance of education; it does not need much harmonization, but mainly mutual recognition of diplomas and measures inducing a higher mobility of students and teachers.

Questions of taxation are more delicate. On the one hand different systems for the provision of public services imply different modes of financing. On the other hand differences in fiscal rules may distort economic incentives and lead to inefficiency in economic operations, since they may stimulate uneconomical flow of goods, capital, or even people.

In principle there is a solution to the dilemma, namely that people be taxed according to their place of residence, which also gives them the right and the access to public services. For the taxation of goods and services bought by consumers the place of purchase would obtain more or less the same result. This rule could avoid distortions even if people moved easily; it would only require that the most cost effective choice of location for each individual precisely reflected the socially most cost effective for him, considering what his tastes and needs for public services were; the approximate fulfilment of the condition would require some harmonization of taxation schedules, but not harmonization of tax rates; the condition may not even be important in practice as long as human mobility across countries remains low.

The rule of taxation according to residence may, however, tend to be used less systematically than it has been up to now. Liberalization of capital flows now means that a significant part of capital incomes is taxed where it is earned; actually in a number of countries rates of taxation on some capital incomes and capital gains have recently been lowered, mainly because it was sought to avoid capital flight abroad where taxes are light or even non-existent. The danger resulting from this trend has been pointed out by A. Giovannini (1989), who argued in favor of restoring the residence principle for capital taxation, notwithstanding serious practical difficulties. Similarly in its White Paper on the internal market the Commission has elaborated a reform of the Value Added Tax that would avoid declaration at the internal borders and would amount to applying the rate of the place of production, possibilities of distortion being then removed by harmonization of the VAT rates. But this harmonization faces serious national resistance and will be very incomplete by 1993; in fact, concerned by the problem, the Council of Ministers has recently asked the Commission to reconsider its project. We may therefore consider the issue as still open. A clear position taken by the economists would be welcome, since the matter obviously belongs to their field of competence: will VAT rates be sufficiently harmonized by 1993 to make distortions negligible in any case, or would the lack of full harmonization recommend a particular taxation rule?

3. Nexus of the monetary union problematics

The present policy line aims at a quick achievement of monetary union with irrevocably fixed exchange rates between national currencies, first among the eight countries now belonging to the European Monetary System, then as quickly as possible among all Community countries. The resistance of those who were called “the economists” has been overcome, since convergence of national economies is still far from complete, as we saw in the first section, not to speak of the significant transfers of power and resources at the Community level, which were often said to be required. How then should we now analyze the evolution, as we are engaged into it?

The main problem to be addressed follows from the lack of long run compatibility between three characteristics of the situation in which we shall soon find ourselves: fixed exchange rates (except for fluctuations within a narrow band), elimination of all controls on capital movements, and substantial differences in inflation rates. We know that at least one of these characteristics will have to give away.

A number of officials and politicians of the countries experiencing the highest inflation rates welcome the difficulty because they think that economic agents at home need to learn the discipline of price stability and that precisely this discipline will be imposed by the monetary union. It seems to me that a large majority of economists would not have recommended such a strategy. Certainly economists as a rule like neither capital controls nor inflation. For a time after the fall of the Bretton Woods system it was fashionable in the profession to praise the virtues of a system of fully flexible exchange rates; but this is no longer so, and in any case European unity is understood to mean fixed exchange rates between national currencies sooner or later, if not a single currency. Economists' lack of enthusiasm for the policy announced seems to be explained by the belief that it will not be applied for very long. Either capital controls will be reintroduced in the inflation prone countries, or changes of parity will occur, perhaps both. Changes of parities would not be a great problem if they could be managed in good order. But this would require a different policy line.

Before wondering why most economists believe the disciplining policy will not be long applied, let us see what could be a policy of managed parities. The difficulty of EMS with full capital liberalization is how to make the system able to resist speculative attacks. The only way is to make the probability of success of the attack small: as soon as there is a substantial probability in the near future of getting a capital gain because of a significant change of parity the incentive to capital flight from the currency expected to be devaluated can be counteracted only by a large difference in interest rates. The alternative for the monetary authorities of the country under attack is to sell their reserves of international moneys; but even this may not be open because of the size of the capital flight, a size that is limited only by the extent of risk aversion since with full capital liberalization the financial system can transfer from one money to another any amount that anyone wishes to transfer. Simple calculations show that the interest rate differential may have to be so large that it obviously appears as unsustainable.

The European Monetary System allows realignments of central parities around which actual exchange rates can freely fluctuate. In principle it thus permits a regular drift of one currency with respect to another. For instance, in order to achieve an annual devaluation of 4 per cent of say the lira with respect to the mark one realignment every year suffices when the lira and the mark are close to the limits of the band at opposite sides. Without any change of the actual exchange rates the two currencies, after the realignment, will have exchanged their positions within the band (since the band is 2.5 per cent wide, this is possible with a maximum realignment of 5 per cent). With the present differences of inflation rates within EMS, realignments occurring about every year would permit stability of real exchange rates without causing the discrete changes in parities and the capital gains whose prospect feeds speculation. Some economists have indeed proposed a policy of fairly frequent though small realignments that would leave some role to the exchange market, but it is a tightly controlled role since monetary authorities would only make those realignments that are consistent with fundamental economic trends (see in particular C. Bean et al., 1990).

This policy would have the advantage of being long sustainable during a phase of economic convergence; it ought not of course to dispense with national disinflationary efforts; its difficulty comes from the fact that it is politically unpleasant to have to decide a realignment when it appears to be easily postponable. Economists preferring this policy to the one that presently seems to be followed , in which realignments are not on the agenda, fear that realignments will finally have to occur, under the pressure of speculation, to be large therefore and interpreted as steps backward in the process of monetary unification. Knowing the versatility of political opinion about economic matters, these economists also fear then that unification will then again appear to some as being unfeasible.

I have not explained why many believe that the disciplining policy will be given up before having reached its objective, namely the convergence of inflation rates. It is simply because the policy would appear too painful. In inflation prone countries this policy would be quite depressing because the absence of devaluation while prices are increasing faster than elsewhere means a real appreciation, hence a loss of competitiveness, which would lower the demand from abroad and divert abroad part of domestic demand. In order to regain the same real parity as it now has, such a country would first have to decrease its inflation rate to the average level, during which phase real appreciation would continue, and then have a lower inflation than others for a good deal of time after. This bulge of real overevaluation would mean unemployment and low investment, the latter implying that the loss of market shares will be felt even longer in the future than overevaluation will last. Expecting the policy to be followed in earnest for as many years as necessary until successful completion, notwithstanding speculative attacks on the currency, loss of reserves and protests against poor domestic conditions, appears to many economists as unwarranted.

However, F. Giavazzi and L. Spaventa (1990) now present an argument that may be read as a justification for a policy of credible commitment to fixed exchange rates. More precisely they oppose this policy to a crawling peg policy as in the "old" EMS, or as proposed by C. Bean et al. (1990). The basic assumption is that the rate of inflation varies as a function of the deviation of output from a given trend, in which unemployment would be constant (at the level of the so called NAIRU). The differences between the two policy regimes are: (i) a real appreciation of the currency against a constant real exchange rate; (ii) the expectation of no change in nominal parities against that of parities adjusting to comparative price levels, (iii) the possibility in the first regime but not in the second to borrow abroad at a small real cost (this cost is equal to the difference between the nominal interest rate abroad and the rate of inflation at home, since the loans would be paid back at the same nominal exchange rate). When the new regime is introduced, it has an expansionary effect due to the lowering of the real cost of borrowing. But as real appreciation of the currency first accelerates then keeps increasing for some time the effect of the loss of competitiveness on output becomes bigger and bigger; eventually it dominates the effect of a low real interest rate. Except for the reduction in import prices, the policy thus accelerates inflation at the beginning (a fact that the authors claim to already witness in Italy and Spain); in so doing it gives more fuel to the disinflationary impact generated by the loss of competitiveness. After a time disinflation becomes more energetic than it would otherwise have been; it turns out that the inflation rate reaches the mean level in the Community sooner and that the eventual output loss is smaller; but the foreign debt is of course higher.

The argument is interesting and deserves thorough discussion. It neglects two considerations that lead to effects of opposite signs. On the one hand, the depressing effect of appreciation on investment and on the growth of productive capacity reduces the excess supply of goods; a higher unemployment then becomes necessary to obtain the same speed of disinflation. On the other hand, a credible commitment to a fixed exchange rate may play an important direct moderating role in price and wage formation, thus becoming an element of the price and incomes policy: social partners and firms can no longer expect accommodating changes of parities that would allow them to stand against foreign competition. This last argument has certainly been predominant in the policy lines that such French ministers as R. Barre, J. Delors and P. Bérégovoy have tried and are trying to follow. I suppose its place in political thinking is not limited to my own country.

Will EMS be able to dispense with realignments in the years to come? When thinking about the question one has to consider the present imbalances concerning foreign accounts as well as inflation rates, but one also needs to bear in mind the determination of some of our political authorities. The French case has led me to become less sceptical about a positive answer than I was until recently; such an answer remains, however, a serious wager.

4. Macroeconomic policy coordination

For many more years to come we shall have powerful national governments. Although tightly constrained in their own monetary policies, they will contribute to the definition of the common monetary policy. Moreover, they will still have a large degree of freedom in budgetary matters, for their public expenditures, and for a number of taxes, even within margins for the rates to be applied to taxes like the Value Added Tax. National governments will then have macroeconomic policies. But in order for those to be successful, coordination and even collaboration within the Community will be necessary. This collaboration will, of course, have to take into account national specificities in the evolution of macroeconomic conditions, specificities that will remain frequent for reasons I mentioned at the beginning of section 2.

Ideally the formulation of macroeconomic policies within the Community should proceed in two stages. At the first stage common objectives must be agreed at the Community level. At the second stage the role of individual countries must be defined. Without full unification such a two stage procedure is unavoidable. No country should resent the fact that, when the second stage comes, its policies are discussed collectively and may be found wanting. Moreover a country that would impose on others, as an unwelcome constraint, a policy of its own independent choice would suffer a loss of political goodwill; its weight in the political process of European unification would be damaged, which would not be in its interest. Thus there would have to be collective examinations in which the views of national governments would of course differ somewhat and compromises would have to be found. Efficient response to shocks would also require that such examinations be frequently repeated.

This is not the place to discuss what the general stance of the Community macroeconomic policy ought to be now. We note with satisfaction that the rate of utilization of capacities is high, that investments are booming and that unemployment is decreasing, whereas in most countries inflationary pressures are well contained. Some commentators even speak of the end of Eurosclerosis. Thus no change of the common policy line is required at this time. But present conditions cannot be expected to last indefinitely. One day or another macroeconomic policy will have to be reoriented.

More important is to know the principles that should inspire the allocation of roles to individual countries: how should disparities in economic situations be taken into account in order to define national macroeconomic policies?

The usual macroeconomic principles will of course apply. But these were determined from theoretical analyses that often focused on the case of a closed economy, whereas any country in the Community is already very much an open economy and will increasingly be so. These principles tell us that, when for instance demand stimulation is required at the Community level, this should be done preferably where unemployment is particularly high and increasing particularly fast, or decreasing particularly slowly, where idle capacity margins are particularly important, and where inflation is particularly low. These principles do not have to be forgotten, but they should be given less weight than was formerly the case, since demand stimulation will largely spill over to other countries.

Considering the present imbalance in the respective situations of the accounts of foreign payments of the various European countries, we can be sure that it has to be reflected in the principles. One natural rule is to say that demand stimulation when required should preferably come from countries with a large current account surplus, whereas demand contraction should come from countries with a large foreign deficit. But should not the principle be formulated somewhat differently? Similarly, since fiscal policy is going to be the main instrument for the macroeconomic actions of national governments, public sector deficits ought to be considered: one can hardly ask countries with very large government deficits to increase their public expenditures and reduce their taxes. But here again how precisely should the principle be formulated?

The two questions above have been recently examined by several authors, in particular in J. Dräze et al. (1987) who considered the problems of macroeconomic policy as they appeared in 1986. They pointed out that deficits may not be the most relevant indicators, since debts seem to be more significant. Deficits may matter only to the extent that they provide measures of variation in debts. But those are quite imperfect measures. If the concern is, let us say, for the ratio of public sector debt to GDP, then the change in this ratio is equal to the difference between the rate of public deficit to GDP, as normally considered, and the rate of growth of nominal GDP multiplied by the ratio of debt to GDP; since inflation rates vary greatly between countries, so does the GDP nominal growth rate. Considering the ratios of the foreign debt and the public debt to GDP, as well as the current trends in their variations, seems to provide the correct reference.

But even this conclusion may not be good, since some countries and perhaps also some public sectors may be living through an investment phase that will bring high returns later on, while other countries or public sectors may at the same time be in a wholly different situation. It would be natural for the former to borrow and to accept an increase in their debts, while the latter ought rather to redeem some of their debts. In order to take this point into account, one ought to consider solvency rather than the ratio of debt to GDP. However, solvency is not easily measurable and may be subject to abrupt changes, as the case of Brazil ten years ago reminds us. The sensible conclusion therefore is to use as a reference the ratio in question, but not blindly. In any case present disparities in indebtedness are such that corrections intended to permit a better evaluation of solvency would have little impact on the relative positions of the various European countries.

It is clear then that countries with large public debts ought to have restrictive budgetary policies. For the Community as a whole as well as for themselves, it would be appropriate that restrictions be particularly severe at times of booms in business conditions, when the risk of inflationary pressures is the most serious. Conversely, countries with low public debts are naturally called to have stimulating budgetary policies at times of slack. This simple principle will have a large role to play for many years, considering the nature of the present disparities. The more traditional ones listed previously are of course not to be overlooked; but their weight will, as I said, be smaller than it used to be.

During these four lectures I have covered a wide range of questions, too wide a range for me to have been able to avoid a number of oversimplifications, as well as the neglect of many scientific works, even among the most interesting ones dealing with the main issues. I have wanted to present an overview of what I believe I have to say at this time about the contributions that the discipline of macroeconomics can bring to the solution of problems now raised by the choice of European economic policies and about some important research topics, the outcome of which could enlighten aspects of this choice.

My message claims no originality, but would, I am afraid, be disputed in several of its main points by some of my colleagues. I hope that it will be found at least worth discussing by people who are, in one way or another, concerned by the subject.

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